

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 797.—Vol. XX.]

LONDON, SATURDAY, NOVEMBER 30, 1850.

[PRICE 6D.]

SPARE STEAM-ENGINE AND MATERIALS FOR SALE.

MR. GUMMOE has received instructions to **SELL, BY AUCTION, at ROCKS and TREVERBYN UNITED MINES**, in the parish of ST. AUSTELL, CORNWALL, on Wednesday, the 27th day of November next, the following **SPARE MACHINERY and MATERIALS**:—

Comprising an excellent 70-horse STEAM-ENGINE, 10 and 7½ feet stroke, recently fitted with entirely new working gear, valves, condensing apparatus, &c., with 26 tons of new boilers.

35 fathoms of 16-inch PUMPS, with plunger bottom to fit.

1 15-inch pole, H and doorpiece, 1 large oak capstan axle, with cast centre piece.

Several 11 and 13-inch pumps, 1 13-inch pole and bottom.

An 18-foot WATER-WHEEL, and 8-head stamps, complete.

1 horse-whim, sundry lots of chain, timber, and other articles.

For inspecting the above, and for further information, apply to Mr. Gray, engineer, Rocks and Treverbyn United Mines, St. Austell, Cornwall.

The Sale will commence at Twelve o'clock precisely.

Dated Imperial Fire and Life Insurance Office, St. Austell, Oct. 30, 1850.

FOR SALE, BY PRIVATE CONTRACT.—A 49-inch cylinder PUMPING ENGINE, 9-foot stroke, equal beam, with new condensing work, and boiler of 10 tons.—Price £680.

A 32-inch cylinder PUMPING ENGINE, 9-foot stroke in the cylinder, and 8-feet in the shaft, with boiler, &c., 10 tons.—Price £550.

Also, a 30-inch cylinder PUMPING ENGINE, of 4-foot stroke, equal beam, suitable for proving a small mine.—Price £100.

For further particulars apply to Capt. Evans, Junr., Pool, Cornwall.

EAST EDMONDSLEY COLLIERY.—TO BE SOLD.

OR LET, THE CURRENT-GOING COLLIERY OF EAST EDMONDSLEY, in the county of DURHAM, containing 174 acres, or thereabouts, held under leases, of which about 30 years are unexpired. The coal has been sold in the markets as "Gibson's Wall's-End" and "North Durham Wall's-End." The purchaser or lessee will be required to take the engines, &c., at a valuation, which will be of small amount.

For further particulars apply to Mr. William Barkus, viewar, Lowfell, Gateshead.

FROM FAWNOG MINE, MOLD, FLINTSHIRE.

VALUABLE MACHINERY AND MATERIALS FOR SALE, BY PRIVATE CONTRACT.—A 60-inch STEAM-ENGINE, 10 ft. stroke in the cylinder, and 9 feet in the shaft, with case, top and bottom, bright gearing, double cateract parallel motion, cast-iron condensing cylinder plunger and condenser, all very complete, with first piece of main-rod and connection.

This engine was made at the Hawarden Iron-Works, about five years ago, is highly finished, and an excellent working engine.

An 18 inch HIGH-PRESSURE ENGINE, 4 feet stroke, with fly and spur-wheels, winding gear, &c., complete.

SEVEN CYLINDRICAL BOILERS, from 29 to 35 feet each in length, and 4½ to 5½ feet diameter, in good repair, with steam and feed connections, fire doors, bars, bearers, &c., complete.

A LARGE QUANTITY OF PUMPS of the following sizes:—19, 17, 16, 13, 8½ and 6 inches bore.

PLUNGER POLES, 18, 14½, 7½, and 5 inches diameter.

WORKING BARRELS, 17, 16, 13½, 13, 12½, and 7½ inches bore.

Also, the capstans, shears, balance-bell, calhead, ropes, chains, smiths' tools, and all the other materials requisite for working a mine.

Application for prices and particulars to be made to the manager, Mr. Robert Williams, Tyntwll, near Mold, Flintshire.—Mr. William Bowen, the agent on the mine, will show the lots.—From Fawnog Mine, Oct. 29, 1850.

VALUABLE MINERAL PROPERTY TO BE IN PART OR WHOLLY DISPOSED OF.—This most desirable METALLIFEROUS SETT, consisting of nearly 2000 acres, is situated in one of the renowned mining districts of central WALES. One discovery of SILVER-LEAD ORE, made upon it some few months ago, was considered of so singular and promising a nature, that a brief account of it was then published, and subsequently copied into most of the leading papers of the kingdom. Since that period a shallow sink has been made on the lode, which is 6 feet wide, traversing a beautiful soft whitish killas. The analysis of the ore, of which there is about 20 tons on the bank, gives 76 per cent. of lead and 50 ounces of silver to the ton; indeed, the last assay of the ore, found at about 7 fathoms from the surface, gave the extraordinary quantity of 300 ounces of silver to the ton. There is a fine mixture of lead ore at the bottom of the present shallow shaft. The mine is but 9 miles (of good turnpike-road) from the shipping port, and a fine stream of water runs close past it, offering every facility for the development of its invaluable mineral resources.

For further particulars apply (post-paid) to "X. Y. Z." at the office of the Mining Journal, 26, Fleet-street, London.

VALUABLE COLLIERY, AT LOWSIDE, NEAR OLDHAM.

—TO BE LET, BY TICKET, at the Angel Inn, Oldham, on Wednesday, the 4th day of December, 1850, at Five o'clock, in the afternoon, on a RENTAL, calculated per statute acre per foot in thickness, those very valuable MINES OF COAL, called the

PEACOCK NEW EARTH OR BENT MINES,

under the Lowside Estate. These mines extend under about 40 statute acres; they are each about 30 inches in thickness, of first-rate quality, and in the best markets.

The water has recently been drained from the mines by workings on the deep in an adjoining estate, showing the mines to be free from faults, and in a condition to be worked immediately, with a small outlay, thereby possessing advantages seldom equalled.

Mrs. Bridesdale, of Lowside, will appoint a person to show the estate, and from her may be had a plan and particulars, with conditions of letting and terms of lease.

Particulars may also be had from Mr. George Wrigley, Corporation-street, and Mr. W. Siblethorn, Cleveland-buildings, Manchester; the trustees; and from Mr. Thos. Liversley, mining engineer, Chamber Hall, Oldham; or Messrs. Slater and Heelis, solicitors, Manchester.

TO BE LET, the CAMBRIAN IRON FOUNDRY, lately erected, with fitting and smiths' shops, foreman's cottage, offices, stable, wharf, and PREMISES, at NEWPORT, in the county of Monmouth, and adjoining the Rhymney Iron Company's wharf, having a frontage of 60 yards to the River Usk, and being in depth on the east side 94 yards, and on the west 114 yards.

These premises are most advantageously situated on the banks of the River Usk, and close to the Newport Dock, with a railway to the works, affording greater facilities for carrying on an extensive trade in iron or tin than any in or near the neighbourhood. To the wharf is attached an excellent jetty-head, with a large crane, for loading and unloading vessels.

For further particulars apply to J. Norris, Esq., solicitor, Newport.

EAST CRAIGWEN SILVER-LEAD MINING COMPANY, DINAS MWDWY, COUNTY MERIONETH.

2000 parts, or shares, of £2 each.

CONDUCTED ON THE "COST-BOOK" SYSTEM.

This sett embraces the whole of the intermediate space between the well-known mines of Cowarth and Craigwen, which are in full work under separate companies, and returning rich silver-lead ores to market. The advantageous position of East Craigwen is, therefore, self-apparent; and the great activity of the mountain, being at an angle of about 45, or 1 in 2, renders it peculiar, if not without parallel, in mining, by giving backs of extraordinary height.

Reports, speculations, and prospectuses, may be had at the offices of the company, 27, Threadneedle-street; or at Messrs. Wire and Childs, St. Swithin's-lane, the solicitors of the Company.

Applications for shares will be received until Monday, the 9th of December.

PENNANT AND CRAIGWEN CONSOLIDATED LEAD MINING COMPANY.

ESTABLISHED ON THE "COST-BOOK" SYSTEM.

The OFFICE of the COMPANY is REMOVED from 27, Threadneedle-street, to No. 4, AUSTINFRIARS, OLD BROAD-STREET.—All letters and communications on the affairs of the Company are in future to be addressed to the undersigned,

WILLIAM GARDNER TAYLOR, Pursr.

N.B.—The office hours are from Eleven to One daily, except on Saturday.

CRAUFURD HOUSE

CLASSICAL, MATHEMATICAL, & CHEMICAL SCHOOL, MAIDENHEAD, BERKS.

In this School it is sought to combine the development of the physical, moral, and intellectual powers with the acquisition of knowledge, and to make the course of study an introduction to the pursuits of life.

Craufurd House, with spacious dormitories, dining, school, and play rooms, was erected four years ago, expressly for educational purposes; and since that time the establishment has been exempted from illness. The situation is elevated, in the vicinity of the Thames, the scenery extended and picturesque, the air bracing, and the grounds comprise 14 acres.

Besides the usual studies of Classical Schools, GERMAN and FRENCH are spoken—the latter language daily, with the assistance of natives, until Four o'clock. Mathematics are taught, theoretically and practically; there are drawing and singing classes. Physical science is pursued progressively, and the recently erected laboratory is devoted to chemical analysis, now so essential to the miner, agriculturist, and manufacturer.

Mr. J. D. M. Pearce, A.M., will be happy to forward prospectuses and references in answer to applications.

CHEMICAL, MINERALOGICAL, AND AGRICULTURAL SCHOOL, 38, KENNINGTON-LANE, LONDON.

The SCIENTIFIC DEPARTMENT under the direction of J. C. NESBIT, F.G.S., F.G.S., one of the Principals.

INSTRUCTIONS are given in AGRICULTURAL CHEMISTRY, and the making of ARTIFICIAL MANURES.—Mineral Analysis taught in all its branches. Analyses performed as usual, on moderate terms.

MR. JAMES CROFTS tenders his SERVICES to CAPITALISTS for the PURCHASE of BRITISH MINING SHARES, whether on a large or small scale; and will be happy to indicate such mines as present the greatest chance of permanent dividends, or ultimate success of the workings, either at the request of his correspondents, or in reply to specific inquiries. The utmost punctuality in attending to communications from the country may be relied upon; and by transacting business only FOR PRINCIPALS, Mr. Crofts hopes to establish an identity of interests between his friends and himself.

JUDICIOUS PURCHASERS IN ESTABLISHED DIVIDEND MINES will INSURE a HIGH RATE of INTEREST per annum, varying from 15 to 20 per cent.

MR. CROFTS HAS SPECIALLY FOR SALE—

Bedford United East and South Tamar Wheel Crebor (25 shares) West Goggin East Sharp Tor Wheel Augusta (15 shares) Warleggan Consols (50 shares)

Lamheroo Wheel Maria (20 shares) Wheel Trelawny (2 shares) Wheel Sheba (5 shares) South Carn Brea (20 shares) Tavistock Consols (30 shares) Wheel Franco (30 shares) Caradon Vale (30 shares)

Dated No. 4, King-street, Cheapside, November 30, 1850.

MINING AND GENERAL AGENCY OFFICES, 52, THREADNEEDLE-STREET, LONDON.

Mr. R. TREDINNICK begs to inform his Friends, Capitalists, and the Public, that his FIRST SALE, BY AUCTION, OF MINING SHARES

will take place at his ROOMS, in the Hall of Commerce, on WEDNESDAY, the 18th of DECEMBER next, at One o'clock precisely, and will be continued weekly.

Mr. TREDINNICK hopes that the arrangements he has made will afford that convenience and advantage to the public investing in mines, so desirable and necessary to ensure an easy and effective sale and transfer of mining property, which its magnitude and importance demands.

SHARES in the following well-known DIVIDEND MINES will be presented FOR SALE:

West Boiler Corn Brea Deron Great Consols Stray Park Treviskey and Barrier

Tinscroft South Basset South France North Basset Wheel Reeth Levant

South Tolgus East Wheel Rose North Pool Holyford Linares Cefogwyn

As well as SHARES in the following MINES, many of which have recently commenced paying dividends, and the residue having capital expended and subscribed to work the same effectively, thus constituting them eligible mediums of investment for capitalists. Shares in the several mines subjoined will be submitted FOR SALE, if not previously disposed of:—

Bryndarian Comfort Conderrow Cook's Kitchen East Wheel Frances East Wheel Reeth Glaston Mines Holmby Point Lewis

Pendalver Consols Pen-y-bank Peter Tavy & Mary Tavy Rock Mines St. Aubyn and Grylls Tamar Consols Treleigh Consols Treleigh Mines West Goggin West Polgooth

West Seton West Frances West Wheel Jewel West Treasury Wheel Harriet Alfred Consols Wheel Margaret Trefusis Tremayne

SHARES BOUGHT AND SOLD ON COMMISSION, and MONETARY MATTERS of every kind NEGOTIATED; Statistical and General Information afforded gratuitously, upon personal application.

Mr. T. offers to the mining world the opportunity of exhibiting in his Public Sale-Rooms, Reports, Plans, Sections, and Specimens of Mines and Mineral Districts, whether situated in the United Kingdom, Foreign, or Colonial Possessions, upon forwarding the same, free of expense; as also Plans, Sections, &c., of Estates, Houses, and other Property for Sale.

Commission 2½ per cent. on shares under £100 each, and 1 per cent. above.

Entrance fee to each lot for sale 5s., to be allowed in case of sale. Shares to be entered two days previous to sale, and shares from country correspondents to be transmitted either to Mr. Tredinnick or to a town agent, two days antecedent to sale. A deposit of 10s. to be paid on all purchases of shares, and the residue and the residue within three days thereof.—Conditions of sale, with printed catalogues, may be had on application at Mr. Tredinnick's offices, Hall of Commerce, Threadneedle-street.

MR. J. C. NESBIT, F.G.S., F.C.S., CONSULTING AND ANALYTICAL CHEMIST.

LABORATORIES—38, KENNINGTON-LANE, LONDON.

MR. NESBIT gives PRIVATE INSTRUCTIONS in CHEMICAL ANALYSIS, and may be consulted on subjects connected with the Composition, Working, or Assaying of Minerals.—Analyses of Minerals, Slags, Sells, Manures, &c., &c., performed as usual, on moderate terms.

SIEVES, RIDDLES, STAMP GRATES, COPPER BOTTOMS, &c.

MESSRS. JACKSON & ESCOTT, WHOLESALE IRON-MONGERS, and DEALERS in every description of MINE MATERIALS, beg to inform their friends, that having ERECTED extensive MACHINERY for the MANUFACTURE of the ABOVE GOODS, are prepared to SUPPLY THEM of very SUPERIOR QUALITY, and in any quantity, on the shortest notice, at prices as low as any makers in the west of England.

Messrs. JACKSON & ESCOTT particularly call the attention of Mine Agents generally to the SUPERIOR DESCRIPTION of their WIRE, which their GOODS are MANUFACTURED, and which they warrant not to injure by keeping any length of time.

WANTED.—FOUR or FIVE good HANDS who understand WIRE-LOOM WEAVING, &c.—Tavistock, Nov. 27, 1850.

SCOTCH PIG-IRON TRADE.—At a numerous MEETING of PARTIES INTERESTED in the SCOTCH PIG-IRON TRADE, held this 22d day of November, 1850, in the George Hotel, GLASGOW:—

Alexander Baird, Esq., of Gartsherrie, George Baird, Esq., ditto Robert Baird, Esq., ditto David Baird, Esq., ditto Robert Stewart, Esq., of Onna George Burns, Esq., of Portland Iron Co. G. Muir, Esq., of Forth Iron Company S. Stitt, Esq., of Stitt Brothers, Liverpool Thomas Robinson, Esq., of Coalbrookdale Iron Company, Liverpool Alfred Radcliffe, Esq., of Bailey Brothers and Co., Liverpool Thomas Prickett, Esq., of T. Prickett and Son, Manchester

George Hall, Esq., of Hall and Pickles, Manchester B. Bateman, Esq., of London D. Reichmann, Esq., of Glasgow William Colvin, Esq., ditto M. E. Robinson, Esq., ditto Theodor. Hertz, Esq., ditto F. Trueman, Esq., ditto James Watson, Esq., ditto Wm. Connal, Junr., Esq., ditto William Short, Esq., ditto D. G. Bunge, Esq., ditto A. G. Kidston, Esq., ditto &c. &c. &c.

The Report of the Glasgow Committee, appointed on the 12th inst., was read by the Secretary, in which was announced the general acquiescence of the recent meetings of the Iron Trade of Liverpool, Manchester, and London, in the objects set forth in the Resolutions of the Glasgow Committee. The Secretary also read the Resolution come to by the Scotch Ironmasters, at their meeting held on the 20th inst., in answer to a letter addressed to them on the 16th inst. by the Glasgow Committee, and which Resolution was as follows:—

"Resolved, by the Ironmasters present,—That they are all willing, not merely for themselves, but to recommend to those absent, to concur with the iron merchants in the abolition of the scrip; but, as they are entirely in the hands of iron merchants purchasing for cash, they cannot become bound to refuse to issue scrip to such parties if required. The iron merchants will thus see that the abolition of scrip is a matter resting entirely with themselves—the ironmasters having no power to do more than to concur in what they consider a desirable object, with those who have really the power to secure and enforce that object."

This preliminary business having been concluded, it was—

Moved by M. E. Robinson, Esq.; seconded by Alfred Radcliffe, Esq., That Robert Baird, Esq., of Gartsherrie, take the chair—which having been acceded to by acclamation—

The following resolutions were unanimously adopted:—

Moved by Samuel Stitt, Esq., of Liverpool; seconded by M. E. Robinson, Esq., of Glasgow. 1. That, in the opinion of this meeting, the system of buying and selling "scrip," or "makers' undertakings to deliver," as at present in use in the Scotch Pig-Iron Trade, is unsound in principle, injurious in its effects, and dangerous in its character, and ought, therefore, to be abandoned without delay.

Moved by Alfred Radcliffe, Esq., of Liverpool; seconded by Geo. Hall, Esq., of Manchester. 2. That, in our opinion, the only safe documents representing pig-iron deliverable in Glasgow, are the warrants of recognised storekeepers; and that in all future contracts such documents only shall be tendered as delivery orders.

Moved by D. Reichmann, Esq., of Glasgow; seconded by T. Prickett, Esq., of Manchester. 3. That a committee be appointed to assist in carrying out these resolutions, and to arrange a system of storage, by which the warrants in future shall represent iron actually stored, marked, and numbered, so that it may be readily identified; and the said committee to consist of the following gentlemen:—

Thomas Robinson, Esq., ditto Samuel Stitt, Esq., ditto William Bird, Esq., London Joseph Firmstone, Esq., ditto E. Buckley, Esq., Manchester Thomas Frickett, Esq., ditto M. E. Robinson, Esq., Glasgow D. Reichmann, Esq., ditto Theodor. Hertz, Esq., ditto Wm. Colvin, Esq., Glasgow

With power to add to their number.

ROBERT BAIRD, Chairman. JAMES WATSON, Secretary.

Moved by Thomas Robinson, Esq.; seconded by Theodor Hertz, Esq. That the thanks of this meeting be given to the Chairman for his conduct in the chair.

A SITUATION WANTED, as MANAGER of a COLLIERY:

has a practical knowledge of both top and bottom; can keep books, and take the management of all belonging to a colliery. Unexceptionable character can be given. Letters to be addressed to "T. A." Post-office, Chorley.

SILVER-LEAD ORE SMELTERS, OPEN to an ARRANGEMENT for SUPPLYING FINE CAKE SILVER, in large or small quantities, may communicate with "W. T. S.," 90, High-street, Birmingham.

STEAM-ENGINE FOR SALE.—TO BE SOLD, BY PRIVATE CONTRACT, a 32-inch cylinder STAMPING ENGINE, single acting, 9 feet stroke in cylinder, with steam case, boiler, about 11 tons, and axles and frames for 72 heads.—Applications to be made to Hocking and Loam, engineers, Redruth. Dated June 26, 1850.

TO BE SOLD, BY PRIVATE CONTRACT, an horizontal STEAM-ENGINE, 12½-inch cylinder, with 3-feet stroke and 18-horse power cylinder boiler, shafts, West's verticals, all complete, with a flat-rope, about 90 yards long, all quite new, and in every way suitable for colliery use.—Address "T. A." at the Post-office, Chorley.

FOR SALE, a 10-horse PATENT ROTARY ENGINE, with new boiler, steam-pipes, cog-wheels, drum, &c., complete.—For price and particulars apply to Mr. Edward Bagot, mineral surveyor, Llanelli.—Nov. 26, 1850.

FRANCE and BELGIUM—VALUABLE PATENT RIGHTS.—FOR SALE, a PATENT, secured in FRANCE and BELGIUM, for an INVENTION connected with RAILWAYS and the MANUFACTURE OF IRON, now in successful operation in this country, and which has been most favourably reported on by the highest authorities.—Address "B." at the office of the Mining Journal, 26, Fleet-street, London.

VALUABLE PATENT.—The PATENTEE of an INVENTION for PROTECTING DWELLING-HOUSES and other kinds of PROPERTY against BURGLARY and FIRE, is desirous of TREATING with a GENTLEMAN for the SALE, or PRACTICAL WORKING, of the SAME—the demand for the apparatus being such as to require an immediate organisation of workmen, and a distinct business establishment.—Apply personally, or free by post, to Messrs. Tatham, Upton, Johnson, and Co., solicitors, 24, Lincoln's Inn-fields.

CARDIGANSHIRE SILVER-LEAD MINES.—Gentlemen desirous of INVESTING in these very profitable UNDERTAKINGS, may receive correct INFORMATION by applying to Mr. EDWARD BAGOT, Mineral Surveyor and Civil Engineer, LLANELLY, through whom advantageous purchases can now be made. Mining Office, Llanelli, Nov. 7, 1850.

SHARES are TO BE SOLD in the following MINES:—

Levant, St. Just. West Wheel Treasury, Gwinaur. Botallack, St. Just. Wheel Castle and Boswidden, St. Just. Trelyn Consols, near St. Ives. West Ding-Dong, Sancedred. Apply at the offices of Mr. Batten, 1, Crown-court, Old Broad-street.

FRANCIS PRYOR, MINE AGENT and SHAREBROKER, begs to inform his friends and the public, that he has REMOVED his place of business from "Bell Cottage," Gwynnapp, to his offices, TOWN HALL, REDRUTH. Mining Office, Town Hall, Redruth, Nov. 19, 1850.

MINING PROPERTY.—BUSINESS transacted in every description of MINING PROPERTY, SHARES BOUGHT and SOLD, ADVISE GIVEN to PARTIES as to INVESTMENT, ADVANCES OF MONEY MADE on the DESCRIPTION OF PROPERTY, Statistics given on Mines, and the earliest information obtained from the mineral districts.—Apply to DURRANT & CO., Mining Sharebrokers, 28, Lombard-street.

MINING OFFICES, 48, THREADNEEDLE-STREET, LONDON.—Messrs. FULLER & CO., beg respectfully to inform the public that they are in a position to BUY and SELL SHARES in all the DIVIDEND-PAYING MINES, and have on hand Devon Great Consols, North Pool, Russell, North Levant, South Carn Brea, Warleggan Consols, Wheel Elizabeth, Harris, &c.

WANTED.—East Russells.—Nov. 1, 1850.

MINING OFFICES, ST. MICHAEL'S CHAMBERS, ST. MICHAEL'S ALLEY, CORNWALL, LONDON.

MR. R. TRIPP, MINING AGENT, has FOR SALE SHARES in most of the best DIVIDEND-PAYING MINES and others, which will pay the purchaser, at present prices, from 15 to 30 per cent.—Including Alfred Consols, Devon Great Consols, North Pool, Botallack, Conqueror, Wheel Margaret, Mary Ann, Trelawny, Bickford United, St. Aubyn and Grylls, Tremayne, Wellington, Tamar, South Tamar, East Wheel Reeth, Hemlock Lead, Truscull, Bodmin Consols, &c.—FOREIGN: Linares, Santiago, Copiapo, &c.

MINES.—MOLYNEUX & CO., 6, FINSBURY-PLACE, SOUTH, and 6, WEST-STREET, FINSBURY-CIRCUS, have SHARES FOR SALE in DIVIDEND-PAYING and OTHER MINES, which will ensure to capitalists the safest and most unexceptionable investment.—Office hours from Ten to Five o'clock.

MR. R. TREDINNICK begs to OFFER his SERVICES in the PURCHASE or DISPOSAL of SHARES in MINES. With an extensive connection in the several mining districts, he will be happy to acquire and afford every information connected therewith, and which may be at all times obtained on application at his offices.—Hall of Commerce, Nov. 30, 1850.

MANUEL and CO., MINING AGENTS, are instructed to SELL in the following DIVIDEND-PAYING MINES:—Great Wheel Baddern, Runnford Ccombe, Great Wheel Mitchell, West Wheel Rose, Wheel Emily, Pentire Glaze, and others.—Office, 42, Fish-street-hill, London.

MR. JOSEPH J. BAKER, METAL BROKER AND GENERAL COMMISSION AGENT, WOLVERHAMPTON. OFFICES—MARKET-PLACE.

MR. JOHN DAVIES, MINING SHAREBROKER, No. 38, TOWER-BUILDINGS, TOWER-GARDEN, LIVERPOOL.

MESSRS. BOXALL & CO., MINING SHARE DEALERS, 5, CROSBY HALL CHAMBERS, BISHOPSGATE-STREET.

JAMES LANE, MINING SHARE DEALER, 80, OLD BROAD-STREET, LONDON.

GREAT WHEEL MARTHA MINE, STOKE CLIMSLAND, CORNWALL.—NOTICE.—This MINE has again been put to WORK under very favourable prospects, and will be CONDUCTED upon the true COST-BOOK PRINCIPLE, as recognised by the Stannaries Court. Such of the late adventurers as may desire to continue their interest in the mine, are requested to apply immediately to Mr. Diamond, Pursr of Great Wheel Martha, near Tavistock.

MINING COMPANY OF WALES.—PROSPECTUSES, containing REPORTS on the MINES and QUARRIES of the COMPANY, Terms and Conditions for its Government, &c., may be had of ST. PIERRE FOLEY, Secretary, to whom letters on the allotment of shares, and on the general business of the Company, are to be addressed.—Offices, 24, Lincoln's Inn-fields, London.

ST. JOHN DEL REY MINING COMPANY.—Notice is hereby given, that the SEVENTEENTH HALF-YEARLY DIVIDEND, being THIRTY SHILLINGS per share on the shares of this Company, will be PAYABLE at this office on the 9th of December and every succeeding day, between the hours of Ten and Four.—Forms for claiming the dividend may be obtained at the Company's office, and must be left three clear days for examination before payment.

8, Tokenhouse-yard, Lothbury, Nov. 29, 1850.

TAMAR SILVER-LEAD MINING COMPANY.—This is to give Notice, that if the CALL of ONE POUND per share, made the 26th of September, and due the 4th of November last, BE NOT PAID on or before the 4th of December, such SHARES on which the Call remains unpaid will be FORFEITED. Salvador-house, London, Nov. 21, 1850.

Just published, **POPULAR MINERALOGY: BY HENRY SOWERBY,** with Twenty Coloured Plates, royal 16mo., 10s. 6d. Reeve and Bannan, No. 5, Henrietta-street, Covent-garden.

Just published, in 8vo., price 4s., bound in cloth, **BY THOMAS BARTLETT, LONDON-STREET.**

A TREATISE ON BRITISH MINING, WITH A DIGEST OF THE COST-BOOK SYSTEM, STANNARIES and GENERAL MINING LAWS. London: Edingham Wilson, publisher, No. 11, Royal Exchange.

WIRE ROPE.—The UNDERSIGNED having recently made extensive additions to their Machinery, respectfully solicit a TRIAL of their ROPES, which, in QUALITY of MATERIAL and PERFECTNESS of MANUFACTURE, cannot be surpassed. WILKINS & WEATHERLY. Patent Wire Rope Works, 39, High-street, Wapping, London.

N.B.—The 3½ miles of wire rope in the Wapping Tunnel, at Liverpool, was supplied from this establishment.

Transactions of Scientific Bodies.

MEETINGS DURING THE ENSUING WEEK.

MONDAY	Entomological—17, Old Bond-street.....	8 P.M.
	British Architects—16, Grosvenor-street.....	8 P.M.
	Chemical—142, Strand.....	8 P.M.
TUESDAY	Linnean—Soho-square.....	8 P.M.
	Horticultural—21, Regent-street.....	2 P.M.
	Civil Engineers—25, Great George-street.....	8 P.M.
	Pathological—33, George-street, Hanover-square.....	8 P.M.
WEDNESDAY	Society of Arts—Adelphi.....	8 P.M.
	Geological—Somerset-house.....	8 P.M.
THURSDAY	Royal—Somerset-house.....	8 P.M.
	Antiquaries—Somerset-house.....	8 P.M.
	Zoological—11, Hanover-square.....	3 P.M.
SATURDAY	Medical—33, George-street, Hanover-square.....	8 P.M.
	Asiatic—5, New Burlington-street.....	2 P.M.
	Royal Botanic—Inner Circle, Regent's-park.....	3 P.M.

GEOLOGICAL SOCIETY.

Nov. 20.—Sir CHARLES LYELL (president), in the chair.

The following communications were read:—1. Notice of the occurrence of an Earthquake at Brussa. On the night of the 19th April, 1850, at 11 P.M., a shock of considerable violence occurred at Brussa, Anatolia, lasting from 8 to 10 seconds. The oscillations seemed to proceed from the south or south-west. This was followed by two other shocks during the night, and by four others at intervals up to the 21st, all comparatively slight. The same earthquakes were felt throughout the country as far as Kütahyah, particularly at Muhallisch, at Lubat on the lake Apollonia, and at Kirmatshi, on the south side of the lake, at which latter place there was a temporary gush of water and sand from an opening in the earth. It was noticed that the strongest shocks followed shortly after heavy storms of hail, and also that at Tehekerghé a momentary stoppage of the mineral streams accompanied the earthquake.

2. On the Drift of Kent. By JOSHUA TRIMMER, Esq., F.G.S.

3. On the Drift of Norfolk. By JOSHUA TRIMMER, Esq., F.G.S. From a very close examination and comparison of the numerous varieties of superficial deposits in various parts of the British Isles, especially of Cardiganshire, Norfolk, and Kent, Mr. Trimmer had arrived at several important generalisations with regard to the distribution and age of the erratic tertiary, and had been enabled to construct a map of the soils on a large scale, illustrating the superficial geology of Norfolk, which was exhibited before the society. The following are some of the generalisations arrived at by the author:—The circumstances of the sunk forest of Happisburgh and Cromer being buried beneath the erratic tertiary, and of the northern drift having penetrated into Cefn Cave, where it covers the deposits containing mammalian bones, point to the fact of the existence of a sub-aerial surface immediately previous to the transport of northern boulders,—thus fixing the precise point from which the glacial period dates, and proving that Britain sank as well as rose during that period. The date of this sub-aerial surface was subsequent to that of the mammalian crag, on which are rooted the trees of Happisburgh and Cromer, and whatever indications the Fauna and Flora of the red and mammalian crags may afford of an approach to an arctic climate, the true glacial phenomena of transported blocks do not commence, in Britain at least, until during the submergence of the desiccated and tree-bearing surface of the latter. At the commencement of that submergence, a bed of marine shells, *in situ* (at Ruxton), above the fluvi-marine deposit on which the forest stands, testifies to marine conditions not very dissimilar to those of the crag, quickly succeeded by the peculiar phenomena of the till or boulder clay, with its broken shells, erratic boulders, scratched and sub-angular detritus, and masses of fragmentary chalk, unbraded and unmixed with other matter, in a manner very difficult of explanation, if the transport were not effected by means of some buoyant material. The erratic deposits form continuous sheets of strata, more extensive than any other tertiary deposits of Britain, although in some localities they have been much broken by denuding action. They occur under the form of an upper and a lower deposit, possessing certain common characters, and certain others that are distinctive. Boulders transported from a distance are found in both; but the lower erratic tertiary deviates more from the type of other tertiary strata than the upper erratic. The lower deposit, or boulder clay, was a littoral deposit of an arctic climate, which advanced southwards during the subsidence of the land, and retreated northwards during its subsequent elevation. The position of the lower erratic in the valleys proves that the latter were excavated prior to the subsidence of the glacial period, and, indeed, before the epoch of the mammalian crag; so that the configuration of the land was nearly the same during the ante-glacial sub-aerial period as at present; old excavations having been filled during the process of subsidence, and re-excavated, more or less, during the period of re-elevation. The distribution of foreign matter in the erratic tertiary of Norfolk is such as would have resulted from the action of shore-ice on sinking land, the ice being sometimes fixed to the coast for months or years together, and sometimes in daily, rapid, and capricious motion, produced more by winds than by tides; the local action being modified, and the local and foreign detritus blended, by a constant general current from the north. In the upper erratic tertiary, the phenomena of ordinary marine action are more prevalent than in the boulder clay; the gravel is more rolled, the stratification more decided; scratched fragments more rare, if not entirely wanting; whilst false-bedding indicates the pushing action of water in seas of no great depth. After some observations on the contorted strata in the Cromer Cliffs, the estuary deposits of the valleys of the Nar and of Graythorpe, the furrowed surfaces of the various deposits, and the extreme paucity of shells in arctic seas, the author concluded with some remarks on the characters and age of the deposits in the valley of the Thames that contain the remains of elephants, &c., associated with freshwater shells of existing species.

4. On the Linksfield Quarry, Elgin. By Captain BRICKENSHILL, F.G.S.

The following papers are to be read on the 4th December:—1. On the Geology of the Upper Punjab and Peshawar; by Major VICARY, E.L.C.S.—2. On the Silurian Rocks and Graptolites of Dumfriesshire; by R. HARKNESS, Esq.—3. Report on the Coal Mines near Erzerum.

INSTITUTION OF CIVIL ENGINEERS.—Nov. 26.

The discussion on Colliery Ventilation, and Mr. W. P. Struvé's Machine, was resumed by Mr. F. FORSTER, who fully agreed with the views of Mr. Struvé, with the exception of a few points, which he entered into at some length.

After some desultory details by Dr. Arnott, on the machinery of ventilation, Mr. EVAN HOPKINS said, he saw no necessity of dwelling on the mechanism of a blowing or an exhausting machine, engineers did not require such matters of detail; the question at issue was on the application of machines for ventilation. He perfectly agreed with the general principles laid down by Mr. W. P. Struvé, as well as with the remarks made on them by Mr. F. Forster; indeed, every practical man who has had experience in underground workings, and especially in collieries, knows the importance of large channels to supply sufficient quantities of air, at moderate velocity and density, in preference to wire-drawn air of great velocity and intensity through contracted passages. The least interruptions in the action of the latter is attended, in a fiery colliery, with serious consequences; whereas, in the former, the danger from any check is not so great. With respect to the application of machines to the upcast shaft, or chimney, of the mine, to create a draft, whether by pumping, or by any other mechanical contrivances, he had always a great objection to, when such means could be avoided by a judicious system of winning arrangements, and effecting a natural draft. However, when such could not be effected, he knew of no better method than the improved pneumatic pumps of Mr. Struvé—indeed, such a mode of ventilation had been familiar to him for many years. He had seen these kind of pneumatic tubes employed in Germany, in many parts of Prussia, Belgium, and in England. It was a common method employed by the generality of old miners in ventilating long levels, during the development of the workings, until natural draft was effected, so that this principle of ventilation was well known. The great improvement introduced by Mr. Struvé was the enlargement of the tube, almost to the magnitude of small gasometers, and doubling the effect of each tub, which was a grand point. He (Mr. Hopkins) had seen and examined Mr. Struvé's ventilators at Eaglesbush Colliery, and was highly pleased with the improvements made, the simplicity of the arrangements, and the effectiveness of the ventilation; and, as far as mechanical means went, he approved of it. He believed the cause of the loss in the effect in the workings below, as compared to the actual duty performed by the machine, was owing to the leakage of the upcast shaft; this should be well lined, and rendered air-tight. Nevertheless, notwithstanding all the improvements which may be introduced to increase the draft of the upcast shaft, unless the system of winning below is so arranged as to insure the constant circulation of air in the old workings, and especially in the upper cavities, so as to prevent accumulation of the inflammable gas, accidents would occur. Fiery collieries, having recesses above, and the air of old workings remaining stagnant, are always in danger; and an accident to the lamp of the most careful man places the lives of all in jeopardy. Every attention is paid to the inclination of the different levels, to allow the water to run towards the bottom of the pump, and to facilitate the extraction; but not sufficient attention is paid towards effecting a natural escape of the light carburetted hydrogen upwards, to avoid its accumulation; a little sacrifice should be made in the former, for the benefit of the latter, in all fiery collieries. Pits are often sunk on the dip, and the windings entirely on the rise; consequently the air is made to circulate from the dip up to the rise, and down again to the bottom of the upcast. In such collieries, if "fiery," a large amount of gas will remain in the upper recesses; whereas, if the upcast shaft was sunk on the crop, or the upper part of the workings, the evil would be avoided, and the gas would constantly escape, and improve the draft. In laying down plans for new workings he adopted that system, and always preferred two separate

pits, sunk suitable to the local conditions and inclination of the seams, to that of the large pits, divided by brattices.

ROYAL GEOGRAPHICAL SOCIETY.—Nov. 26.

Capt. Fitzroy, R.N., read a very interesting paper on the relative merits of the different projects of communication between the Caribbean Sea and the Pacific Ocean. The discussion on this great and interesting question was commenced by Col. Lloyd, and followed by Mr. Evan Hopkins; it caused so much excitement, as to render it necessary to adjourn the subject until the next meeting, when we shall enter fully into the matter, and especially the bold project of effecting an absolute strait, and thus making a complete and uninterrupted communication between the two oceans, as suggested by Mr. Hopkins.

PROFESSOR TENNANT'S LECTURES ON MINERALOGY.—PORPHYRY, FELSPAR, ARGILLACEOUS MINERALS.—No. VIII.

On Wednesday Prof. TENNANT commenced his lecture at King's College, by making some supplementary observations in reference to several classes of minerals already described. He referred particularly to *porphyry*, of which rock there were many kinds. Leaving geological considerations out of the question, and looking upon this substance purely as a mineral, he would simply remark that it was found in dykes or veins, and in it were many different kinds of crystals, imbedded as if in pasta.

In the county of Antrim a beautiful porphyry, with veins of jasper running through it, was found protruding through the chalk rocks. Porphyry generally varied much as to its compactness and in Cornwall it was often found so compact, and with so little felspar in it, that it would ring like a bell. Another kind of porphyry was that manufactured at Stockholm into vases, tables, large mortars, and similar articles. Many specimens of the Swedish porphyry were sent to be exhibited at the opening of the Polytechnic Institution, but their value did not seem to be truly estimated. Many were sold at very low prices, rather than incur the cost of returning them, but a table, which was invoiced at 1000*l*. or 1500*l*.—a most magnificent specimen—was returned.

He returned again to *common felspar*, in order to introduce a specimen which he had most successfully broken, so as to show its double cleavage—the one being at right angles to the other. He had a specimen of *granite* there from the county of Wicklow, in which were shown distinctly crystals of felspar, quartz, and mica. Another granite, spoken of in the older works on mineralogy, but now seldom mentioned, was called the Hebrew or graphic granite, because the mass when cut through in a transverse direction and polished, showed sections of crystals, which, hastily viewed, had a great resemblance to a number of Hebrew characters. Common mica and felspar were the chief constituents of the rock called *gneiss*. *Mica-slate* was formed of mica, felspar, and quartz in parallel layers; and the specimens of this mineral exhibited had in them many crystals of garnet. *Labradorite*, or *Labrador felspar*, a most beautiful stone, was composed of silica, 55; alumina, 26; lime, 11; potash and soda, 4; and from 1 to 2 per cent. of oxide of iron. Its cleavage was parallel to the base of an oblique rhombic prism of 118° and 61°. It was sometimes called opalescent felspar, from the remarkable prismatic colours which it showed when held to the light in a proper direction. There was in the British Museum a very fine collection of these brilliant stones. Although they derived their name from Labrador, they were found in other localities—as, for instance, in Finland, at St. Petersburg, and in the Ural Mountains. Travellers described this felspar, when it could be observed imbedded in the sand with the water washing over it, and the sun shining upon it, as presenting a play of prismatic colours—blue, green, gold, purple, and silver, of an indescribably brilliant character.

He next referred to *porcelain-clay*, which was nothing more than decomposed felspar, obtained chiefly from Cornwall and Devon, and used to an extent which had now become enormous. He had lately visited some of the chief manufactories—those, for instance, of the Mintons, the Devonports, the Copelands, or the Wedgwoods; and these employed from 500 to 800 persons in each factory. At the New Museum, in Jermyn-street, specimens of the china manufactured in the present day were arranged beside that of the year 1500; and the improvement was most wonderful. This substance, called *porcelain*, of which so many beautiful statuettes and semi-transparent sketches were made, was nothing but this decomposed felspar, rendered more fusible by the addition of a little borax, which at the same time gave it a peculiar softness of appearance, in which it had greatly the advantage over the articles manufactured at Berlin, Dresden, Stockholm, and elsewhere on the continent.

In speaking of *clays*, he must be understood to mean generally substances of an earthy texture, which, when breathed upon, emitted an argillaceous odour. They were of various degrees of hardness, and sometimes so compact as to be quite of a stony structure. As they never occurred crystallised, but were evidently mechanical mixtures, frequently derived from the decomposition of other materials, they could not properly be regarded as minerals in the true acceptance of the term. Taking Phillips's arrangement, the first of these substances was—

Slate-clay, or *Shale*, which occurred massive, and was found chiefly in the coal measures, where a bituminous clay alternated with it. He here exhibited a section from a coal-field in the neighbourhood of Bristol, in which were horizontal layers of bituminous shale, and occasionally basin-shaped beds alternating with beds of sandstone, remarkable for the faults in them. At the bottom of these basin-shaped deposits was frequently found fire-brick, or *Stourbridge clay*, an excellent material for the construction of bricks for furnaces, and other purposes where a great resistance to heat was required. The beds of these shales were interesting, as containing an immense variety of fossil plants. These remains of antediluvian forests had been ascertained to have 47 different genera, and 210 species. Fossil trees, 50 feet or 60 feet in length, were often met with immediately over the coal, which was itself manifestly of vegetable origin. The lecturer here exhibited some large and interesting specimens, which had been recently sent him by an extensive coalowner.

Adhesive clay was of a whitish colour, and had its name from the fact that it was adhesive to the tongue. *Menelite* was found in it in the neighbourhood of Paris. It also contained many fossil remains. One variety of it, found in Bohemia, was called "biller slate." The recent discoveries of Ehrenberg showed that biller slate was composed almost exclusively of the siliceous cases of fossil infusoria animalcules. It was used for polishing various metallic substances.

Rottenstone, another of the clay family, was much used for polishing metals in this country. It was nothing more than the decomposed black marble of Derbyshire, which was much worked in the neighbourhood of Bakewell.

Fuller's-earth was a most valuable material for the manufacture of cloth, and formerly its exportation was forbidden by Act of Parliament. The fuller's-earth beds at Reigate were well worthy of a visit. Sulphate of barytes was found there in considerable masses, presenting very regular crystallisations.

Clay-slate, or *roofing-slate*, was too well known to require description. It was not only much used in this country, but large quantities were exported from Bangor to America. Clay-slate was not invariably applicable to useful purposes, as that of Cornwall, for instance, was so much decomposed as to crumble at the touch. In Cumberland the clay-slate yielded numerous small crystals of chialottite; the crystals, when broken transversely, were marked with a figure something like the letter "X."

People were often asked in the streets to buy a Turkey stone, but the article offered was generally a piece of slate, blackened by oil, and worth about a halfpenny. Turkey bones, touchstones, and other whetstones, belonged to this family. Excellent specimens of this variety were found in Charnwood Forest, and in the neighbourhood of Snowdon. They contained minute particles of silica, which acted as a very fine rasp.

Black chalk, used by masons, was decomposed slate, often intermixed plentifully with iron pyrites.

Pipelay, or *galt clay*, had been used in pottery certainly since the time of the Etruscans, of whose works there were in existence many admirable specimens. *Brick-clay* hardly required a notice, except to say, that in London the builders appeared to use worse materials than were employed in any other part of England. He had often picked out of a row of bricks designed to go into a building five or six broken into three or more pieces. The materials, in fact, were not properly mixed, and thus while some might be passable, others were very bad. Bricks of the ordinary dimensions, 9 in. long, 4½ in. wide, and 3 in. thick, might often be broken in two with the hands; and there could be no doubt that many accidents, such as the falling in of the arches of railway bridges, were attributable to bad bricks. The specifications said, it was true, "best bricks," but there was nothing to define what were "best." The result was that any materials that could be pressed into a mould, and made to adhere together in the furnace, were called bricks. In the midland counties, where excellent clay and good sand were used, the bricks were as durable as stone, and even if they only sun-dried would stand the weather, whereas he had seen at Woolwich, after a sudden and heavy storm of rain, stacks of unburnt bricks washed down.

The lecturer concluded, by examining the students as to the progress they were making, the result of which was highly satisfactory.

[The next lecture will treat of zeolitic minerals.]

TEMPEREST PROGNOSTICATOR.—The *Illustrated London News* says:—"A philosophical invention from Whitley appears in the form of a temper prognosticator, whose accuracy is said to have been tested by the storms of the last 12 months. Its inventor is Dr. Merryweather." We have ascertained the above statement to be correct, and that the apparatus is to be exhibited for the first time at the Great Exhibition, when a pamphlet will be published giving an account of the discovery. The disastrous storm of the last month (October), was foretold by the temper prognosticator, and communicated by letter to the president of the Whitley Philosophical Society 5½ hours before it took place. We understand that Dr. Merryweather intends to confine the manufacture of these instruments to the artisans of Whitley.—*Yorkshire Gazette*.

IRON, HARDWARE, AND METAL TRADES' SOCIETY.

A general meeting of this useful and well-supported charity was held at the London Tavern, Bishopsgate-street, on Monday. The immediate business before the meeting was the election of two men and one woman as pensioners of the society, and for the transaction of other business. T. B. Simpson, Esq. (treasurer), presided on the occasion. In addition to the usual routine proceedings, G. B. Thomeycroft, Esq., of Wolverhampton, was elected a vice-president of the society, and the report of the committee in the case of William Dods was confirmed. Thanks were voted to Messrs. Barwell, Bligh, Bennett, Mapplebeck, Martineau, T. C. Salt, and R. F. Sturges, on account of their zealous and effective co-operation with the deputation appointed by the society to visit Birmingham, by means of which the subscriptions have been considerably augmented. The exertions of these gentlemen, as well as those of the deputation, well deserved this mark of approbation. Messrs. Constable, Hoole, and Moser were chosen to act as scrutineers, and from their announcement it appeared that the highest number of votes were given for Edward Elliott, John Bradney, and Mary Ann Swatten, who were subsequently declared by the chairman to be elected pensioners on the funds of the society, to the amount of 20 guineas per annum each. The continued indisposition of their late hon. secretary drew forth an expression of much regret, and the sympathy of the meeting will be conveyed to that gentleman, with an earnest hope for his speedy restoration. The next election of pensioners, being the tenth, was announced to take place in May next; and, with a view to more general publicity, we append the description of the class of persons eligible to be recipients of the society's bounty:—"The candidates must be deserving and necessitous persons, occupying, or having occupied, the station of master, traveller, clerk, warehouseman, fireman, or apprentice, in any branch of the iron, hardware, and metal trades, in any part of Great Britain, or the widows of such persons," and every application must be sent in before the 3d of February.

BRITISH AMERICAN LAND COMPANY.

The half-yearly meeting of this company was held at the office, New Broad-street, City, on Monday, the 20th inst.

A. GILLESPIE, Esq., in the chair.

The CHAIRMAN said that arrangements had been made by the directors since their last met, which led him to believe that their affairs would soon appear under a more favourable aspect. The seminary at Montreal had, as was expected, made good their undertaking, and the corporation of Montreal had advanced 125,000*l*. in debentures. Through this accommodation the railway was proceeding most satisfactorily. After they should have proceeded to execute 27 additional miles, the railway would be carried to Acton, in which neighbourhood this company possessed 70,000 acres of land. The distance from Melville to the city of Montreal was 70 miles. When the railway should be constructed to the latter place, this company would be entitled to receive the aid of a Government grant. The directors were happy to announce that the collections made during the present year exceeded those of the past one by about 2000*l*. By the last accounts received from the commissioners, it appeared that the settlers were in a thriving state, and the trade of the country was much improving. The calls had been paid on all the shares in this country with the exception of 80, for which arrangements were also being made.

After this statement had been made, a vote of thanks was passed to the chairman and directors, when the meeting separated.

THE NORFOLK RAILWAY.

The adjourned half-yearly meeting of this company was held at the offices, Guildhall-buildings, City, on Tuesday, the 26th inst., and was well attended.

MAJOR TYNDALE in the chair.

The report of Major Court, the auditor, and the reply of the directors thereto, were delivered to the proprietors on entering the room.

The CHAIRMAN put the question, whether it was desirable that the various reports should be read to the meeting, as they had been some time in the hands of the proprietors, which was decided in the negative. He then apologised for the long delay in calling them together, which arose from a view of getting a larger attendance present. He hoped they would find the reply of the directors to Major Court's statement satisfactory. It was stated at the last meeting that two vacancies had occurred in the direction, which the directors had filled up on the requisition of a large number of influential shareholders, by the appointment of Mr. Barber and Mr. Wells. The shareholders would, no doubt, like to hear a few words on the present state of the company. He was happy to say that, in a very brief period, the capital account might be practically closed, the works now going on being but of small magnitude. There was a revenue derivable from their railway of 120,000*l*. per annum. It was his opinion that the cost of working, set down by the Eastern Counties Company at 88,000*l*. for the half-year, was too large, and in this opinion he was supported by others. He would take this view of the subject. Their income was 120,000*l*. a year; from this take 50,000*l*. (for at that sum parties were willing to work it) as the expenses; then 20,000*l*. for the interest of the bonded debt; and, finally, that of the guaranteed stock 35,000*l*. a year—making, together, 105,000*l*. per annum; leaving to the company a balance of 12,000*l*. (Hear, hear.) If the proprietors took his view of the subject they would have nothing to fear, even if the amalgamation with the Eastern Counties were abandoned. (Hear, hear.) They would, however, not press that matter one way or the other. It was quite clear that their prospects were more cheering, and daily experience showed the growing importance of their port of Lowestoft, the dues of which were rapidly increasing. They began at 2000*l*. and had now reached 6000*l*. a year. The traffic brought by this means must largely increase, when his worthy friend, Mr. Peto, had established a packet communication between Lowestoft and the northern ports of Europe. He did not mean to say that they were in a prosperous state, but that they were not in that collapsed state that had been represented. In discussion, he would just move that the remaining part of the directors' report, which was not agreed to at the last meeting, be now adopted, printed, and circulated for the use of the proprietors.

Major COURT rose to reply to the report of the directors on his statements, and concluded by moving, as an amendment, the appointment of a committee of inquiry into the past and present state of the company's affairs.—Mr. HARVEY seconded the amendment.—Mr. OLD, Mr. LAWRENCE, and Mr. JACKSON spoke in favour of the original motion.—Mr. Peto, M.P. (a director), stated that the accounts which Major Court had disputed were now before Messrs. Galtier and Co., as well as those of the Eastern Counties Company, and their reports on both of these accounts would be placed in the hands of the proprietors on the same day. Would it not be better to wait till they appeared, before the figures of the directors were attacked? If the proprietors in the interim had not sufficient confidence in the directors, he for one would be happy to retire. (No, no.) If he moved them to look at their affairs like men of business. If the Great Northern got hold of the Cambridge traffic, the Eastern Counties would pay no dividend. The fact was, that the interests of the Norfolk, the Eastern Union, and the Eastern Counties depended on each other; and to succeed they must eventually consolidate their interests. Double the number of trains were run on the Norfolk and Eastern Union Companies' lines than were necessary, for want of a proper understanding—an enormous expense to the company, without increasing the number of passengers. He put it to the shareholders of all three companies whether it would not be advisable to set about the saving of those enormous expenses by acting in unity, by which also the whole traffic of the Eastern districts would be secured to the three companies. (Applause.)

The amendment of Major Court was then rejected by a large majority, and the original motion was adopted.

A special meeting took place in respect to the Wareham Valley shares, when Mr. Peto stated, that the question would be settled by himself and Major Tynsdale, in conjunction with two directors of the Wareham Valley Company.—A vote of thanks was then passed to the chairman and directors, when the meeting separated.

LIABILITIES OF RAILWAY SHAREHOLDERS.—In the Vice-Chancellor's Court, on Monday, the case of Mowatt & Co. v. the West Cornwall Railway Company, came before Sir R. M. Rolfe. The railway company had brought an action against the plaintiff for a call of 2*l*. per share on 5017 shares. An injunction had been obtained in 1848 to restrain proceedings; after which, an order was obtained by the defendants to dissolve the injunction. It was subsequently agreed that the trial at law should go on, but staying execution—the decision of which might render further proceedings in equity unnecessary. The trial of the action took place in January, 1849, and the Court of Queen's Bench ultimately delivered judgment, after argument, in June, 1850, and held that the company were entitled to recover the sum of 10,084*l*. being the amount of the call referred to. The motion on Monday was for making absolute the order for dissolving the injunction. Mr. J. Parker, on behalf of the plaintiff, showed cause against the motion. The plaintiff, from his statement, had, in 1847, agreed to take a large number of unappropriated shares of the company, on certain conditions, specified in a memorandum drawn up—for the fulfilment of which he deposited shares in the Lancashire and Yorkshire Railway Company, as security, in the hands of Messrs. Denison and Co., the bankers; the agreement, however, being subject to confirmation of the shareholders at a general meeting. It was now contended that such confirmation was not obtained upon a fair representation to the shareholders; and, further, that Mr. Vigurs, the agent of the company, had not been authorised to enter into the contract by any sufficient instrument, and that, therefore, the company not being bound, the plaintiff must be equally liberated. By the memorandum in question, the plaintiff, in consideration of his taking the shares, was to receive mortgage debentures, payable three years after date, and bearing interest at 5 per cent.; and it was argued by the learned counsel that the present proprietors could not be bound by any former resolution to issue the debentures. Mr. Rolfe followed on the same side, contending that the company, not being able to give the plaintiff the debentures, could not insist on holding him to his part of the obligation.—The Vice-Chancellor deferred the further hearing of the case until Saturday (this day).

FRANKLIN EXPEDITION.—Capt. Forsyth, R.N., has addressed the following letter to the Gutta Percha Company: Nov. 18.—"It gives me much satisfaction in being able to bear testimony to the value of gutta percha in constructing boats. The gutta percha boat presented to Lady Franklin by Messrs. Searle and Co., for the use of the expedition under my command to the arctic regions, proved an invaluable acquisition to the expedition. Whilst the other boats, constructed of wood, suffered much by the cutting of the young ice, the gutta percha boat was not in the least damaged, and returned to England in almost as good condition as when she left, although she underwent all the rough work of the voyage."

MINING IN SOUTH AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

On the 11th and 12th July we had a land sale, of so important a nature, as to induce me to avail myself of an overland mail to give you the particulars of it, and some other local news, which, I trust, may prove interesting to your readers. The different lots put up to auction comprised agricultural, mineral, and town allotments. You are no doubt aware that for some time past the Burra Burra Company and the Patent Copper Company have been sending their produce to Port Adelaide on a new route, via Port Wakefield; this is a creek at the head of St. Vincent's Gulf, forming the embouchure of the River Wakefield, and having depth of water sufficient for barges of considerable tonnage. The intervening country between the Burra and the port, a distance of about 30 miles, more or less, is partly composed of undulating hills, of easy access, partly of flat country, making the transit of the ore from the mine, and metal from the smelting works, extremely easy. Many applications having been made to Government for portions of land at this spot, a township of 40 acres was laid out in quarter-acre lots, which were all sold on the 11th July, fetching in the aggregate nearly 2000*l.*, or at the rate of 50*l.* per acre! There is no doubt that this will be a thriving and bustling port in a very short time, as the whole of the traffic to and from the northern mines, and all the north country wool, is sure to be shipped from this spot; and it is in contemplation to erect wharves and to deepen the channel immediately. After this there was sold 2098 acres of agricultural land, in various sized blocks, which fetched 3802*l.* 5*s.*, or about 1*l.* 12*s.* per acre.

Next came the mineral lots: 706 acres sold for 24,602*l.* 8*s.*, or about 35*l.* per acre; but this requires a little more information, to make you understand how this astounding result was brought about. Never has land fetched such prices; the never-to-be-forgotten "North Kapunda 7000*l.* section" not equalling the price one 80 acre section fetched at this sale by 3500*l.*, as you will see further on. You will easily understand that there is nothing surprising at new discoveries of mineral land being made very frequently here, in a country so essentially metalliferous as South Australia. In most cases these new discoveries are kept as secret as possible, for the obvious purpose of securing the purchase of these lands at auction without competition. I might amuse your readers very much, and fill many sheets of paper, by describing all the stratagems, schemes, and contrivances resorted to to hide these mineral "indications" when found. People have often been at immense labour picking up and burying in a large hole every perceptible vestige of copper-stained rock; over which hole, when filled up, a large fire will be lit, to destroy the traces of the ground being disturbed; at other times, where the rock has been too solid to remove, a pot of ferruginous coloured paint is resorted to, to paint and daub over the green stains in the rock. Sometimes a flock of sheep are encamped on the spot, where practicable, which soon cover the "indications" with a deposit not exactly of a mineral character. I have also heard of a hut being built over the spot where the outcroppings were within a small compass. But without many sharp Cornish eyes in the province, who are always on the qui vive to ferret out new lodes, and (from the absence of well-defined roads) the country being constantly traversed in every direction, it does not often happen that the day of sale arrives without the secret having transpired. In the case of the celebrated "Emu Flats," every man in the colony knew all about where the copper was, and a heavy competition was only avoided by the contending parties agreeing before the sale not to oppose each other, but to allow all the land to be bought by one party, and then to draw alternate lots for first and second choice. The mineral land sold on the 12th July is situated 24 miles south-west of the Burra, and about 30 miles east of Port Wakefield; the situation is, therefore, very good for mining purposes. The place is called "Emu Springs," which is, therefore, not to be mistaken for the Emu Flats, or vice versa; no doubt both these places will soon have special names to distinguish them. The lode of which I am now writing, cropped out at surface, but only showed oxide of iron. The smelting-works were in the habit of sending their drays here to load this iron ore, which was used as a flux for the rich Burra ores—the latter, as you are aware, having but very little of this metal in its composition. When the top of the lode had thus been excavated a few feet, little strings of copper began to appear; this exciting attention, the excavations were deepened—the percentage of copper rapidly rose on assays from 2, 3, 5, 8, to 15 and 20 per cent. as the depth was increased. Here was a discovery! The narrow shaft, at a depth of 20 feet, was all copper ore, mixed with iron, of various produce—some specimens as high as 40 per cent., and the size of the lode was immense, as no walls were found on any side at the bottom of this hole, which was driven upon far enough to prove the lode being very large. By this time, however, many people knew of it, and as the day of sale approached it became evident, from the stir among the mined men in the place, that these sections were looked upon as containing more than the mere flux for smelting purposes, which was the ostensible reason given when the survey was asked for. The competitors for this prize were, the Burra Company, the Royal Mining Company, and a new association of 28 capitalists, who each subscribed from 500*l.* to 1000*l.*, each to a fund for purchasing the sections. An accommodation was in vain attempted to be arrived at before the sale; the Royal Mining Company was not feared, as it was known that 3000*l.* or 4000*l.* would be the outside of their bid; the new association was not understood by the Burra Company—the latter thought that no one would have the hardihood to bid against them, when it was known that they were determined to have the two best sections—*côte qui coûte*; they discredited to what extent funds had been provided by the new association, who, although they knew it was hopeless to compete successfully with the Burra, gave the latter to understand that they would have to pay dearly for the land.

The reasons given out by the Burra directors to justify themselves to the shareholders, since the sale, are understood to be twofold—first, the ore on these sections being of the utmost consequence to use as a flux with the other Burra ores; and, secondly, that this being the case, and the ore being very abundant, it was evident that a large number of miners would be located there to raise ore for which so ready a sale was to be obtained from the smelting-works; and that, consequently, it might seriously interfere with the mining operations at the Burra itself, owing to the scarcity of miners, if the whole control did not remain in the hands of the one company. A third reason might be added, which is self-evident; if the surface ore, being oxide of iron, showed the most incontestible proofs of rapidly turning into carbonate and oxide of copper at a depth of only 20 feet, what was to be expected at 10 or 20 fathoms? Every Cornishman who has seen it, says it will be an immensely valuable lode of copper ore. I hope I have made it clear to you, that good and valid grounds existed for both competitors to hold their ground at the sale; or, rather, to use the expression of a great scholar in Cornwall, in the "Muntz's Metal" case—they both determined to see who would "burn bank notes longest." The sale, one of the most exciting that has ever taken place here, was held in the new court-house. The Colonial Treasurer and his staff of officials sat at a table in the body of the court; the raised platform, or judge's seat, was occupied in strength by the Burra directors; the reporters' bench was taken possession of by the Royal Mining Company, and the remainder of the space was densely crowded by a promiscuous assemblage—no one except the "initiated" knowing who were the parties forming the new association, and who was to bid on their behalf. The first section, No. 2178 (1 am, of course, now only speaking of the mineral lands at Emu Springs), containing 77 acres, was put up at 77*l.* A few seconds of intense silence ensued, which was at length broken by the advance of 1*l.* on the bid; from this it rapidly went up—50*l.*, 100*l.*, and 500*l.* at a time, and knocked down in five minutes to the Burra Company for 3000*l.* 1*s.* The next section, No. 2179, 80 acres, only fetched 352*l.* 2*s.* No. 2180, 83 acres, was again run up to 2000*l.* 1*s.*, and also bought by the Burra Company; this was, therefore, already 5000*l.* spent by them for 160 acres. Now came the two really valuable sections.

No. 2181, 80 acres, began with the everlasting 1*l.* advance; the new association now appeared—the previous biddings being confined to the Royal Mining Company and Burra Company. It soon became evident that it was going to be serious work; the biddings became spirited, and the excitement of the lookers-on intense. The secretary of the Burra confined himself to the simple bid of 1*l.* in advance of every hundred pounds bid by the spokesman of the other party; 10,000*l.* bid by the latter, was at length called out by the Treasury clerk, who acted as salesman; every eye was now turned to the redoubtable Burra nabobs, who looked down with impassable features on the crowd below—and one *shilling*, quietly said Mr. Ayers (the secretary of the Burra Company). Several heads were now seen bending together in deep consultation round the spokesman for the new association ("long-heads" all of them); and just as the hammer was about to drop, 5000*l.* more was bid by the latter; the magical, "and one *shilling*," again broke the intense silence, proceeding from the Burras, when the opposing party gave in, and the section was knocked down to the Burra Burra Company for 10,500*l.* 1*s.*, amidst tremendous excitement.

The next and adjoining section, No. 2182, into which the great lode on 2181 runs, now came on, and after a similar scene was knocked down to the Burra Company for 6200*l.* 1*s.* Nos. 2183 and 2184, 146 acres, were bought by the new association for 800*l.*, and the remaining two, Nos. 2185, 2186, 160 acres, by the Burra Company for 1750*l.* 2*s.*

The following is the connected list of this sale:—

MINERAL DISTRICT.

County not named—North of Section 3302.	Emu Springs.	No. of plan.	177.
2178	77	H. Ayers	£3000 1 0
2179	80	Robert Hawkes	352 2 0
2180	83	H. Ayers	2000 1 0
2181	80	Ditto	10500 1 0
2182	80	Ditto	6200 1 0
2183	88	Elder and Hart	800 0 0
2184	78	Ditto	300 0 0
2185	80	H. Ayers	950 1 0
2186	80	Ditto	800 1 0

By which it appears that the Burra Company bought 480 acres of mineral

land for 23,450*l.* 4*s.*, or at the rate of within a few pounds of 50*l.* an acre—an amount which will be but little felt by the company, as it only involves the suspension of one 10*l.* dividend. The deposit of 10 per cent. was paid by them the same afternoon, and an express at once dispatched to the captain of the Burra Mine to put on a number of the best miners to "try" the property, so as to be able to judge during the month whether to forfeit the deposit or pay the balance and keep the land; as this is the condition in all land sales, that 10 per cent. is to be paid at once, and the balance in a month—the deposit becoming forfeited on not paying the remainder when the month has expired; the Government having never as yet enforced the fulfilment of the original bid.—The total amount of money realised in the two days was 29,582*l.* 11*s.*, and the quantity of land sold 2856 acres 2 roods 36 poles—the general average being 10*l.* 6*s.* 10*d.* per acre.

There are more known mineral localities which will be severely contested whenever they are put up; and as the Burra Company seem determined to monopolise the best of every thing that is sold, such a combination of capital will take place on the next occasion as will, at all events, make them pay dearly for their grasping tastes, if it is not possible to outbid so enormously wealthy a proprietary. There is not the least doubt but that the balance will be duly paid at the expiration of the month; the Burra Company know that if they forfeit their deposit, the same sections will be immediately applied for to be put up again to auction by the other association; and the very nature of the biddings of both parties will show that sufficient is known of the property to justify the sum being given; for the simple reason, as already stated, that the lode is very large, and of a kind of ore which, although not just now very "coppery," will, nevertheless, meet a most ready sale in any quantity at the smelting-works at Kooronga (Schneider & Co.'s) and Aporinga (Penny's).

(To be concluded in next week's Mining Journal.)

MINING SHARE EXCHANGE.

Sir,—I have waited with impatience the realization of the project which has been for some time in contemplation—viz., the formation of a Mining Exchange, where the purchasers and sellers of mining shares may meet, and something like a correct estimate of the value of mining property be ascertained. From the high character of the parties who originated the plan, and the business-like energy attributed to them, I anticipated much, and I would still hope I shall not be ultimately disappointed. Still, we do not seem exactly on the road to realise all the blessings which are expected to result from the project, since what was recently so loudly talked about is now scarcely mentioned. The Stock Exchange and the brokers are alike silent on this important subject. The former are evidently "taking time to consider"—to what purpose time will show. The mining brokers are likewise considering the matter after their own fashion, but no movement is perceptible among them; there is nothing to show that the seal they lately manifested has not subsided into indifference, and perhaps, something more.

But, Sir, though the committee of brokers, appointed for the purpose of organising an "Exchange," may deem it discreet to lie dormant for a time, waiting possibly the first "move" from Capel-court, something, I think, might be done to show that they have still at heart the removal of the evils alleged to attach to mining business as now transacted. What, for instance, is to prevent the leading brokers from putting forth a weekly authorised list of prices of mining shares, to be inserted regularly in your Journal, for the guidance of those interested in mining property? One of the least benefits to be anticipated from the publication of such a list would be the prevention of all the misrepresentation and trickery charged, truly or not, upon certain persons connected with mining affairs. The purchaser of shares will always have it in his power, by referring to the authorised quotations, to detect a false statement as to the value of shares—or, at all events, will be in a much better position to do so than he is at present. I am not sure but that the regular appearance of a share list, if known to emanate from a committee of the leading brokers, would not produce most of the benefits that are expected to flow from the establishment of the "Exchange" itself, since the great purpose of the latter is to give the stamp of authenticity to mining business, by making known the real price at which the shares have changed hands. The brokers' committee, I conceive, could hardly give a better proof of their sincerity than by making arrangements for publishing such a list, the effect of which would quickly be to invest their negotiations with a higher character than they have yet possessed, and enhance the importance of the mining interest. I can imagine many obstacles that may render the formation of a general mining mart a more difficult thing than was at first contemplated. The apathy of some, the interested views of others, and the breaking in upon old habits, may all help to retard the completion of the project, though they can never defeat it, if the mining body is sincerely bent on carrying it out. But let a mining share list be put forth in the meantime; let the brokers generally contribute their aid to render it as perfect as possible, and the spirit of emulation would soon do wonders in making it a safe guide for the public. Here is a practical reform, the benefit of which would be immediate, and which ought not to encounter many difficulties in being brought into operation. Will the brokers allow themselves to be anticipated in the publication of such a list by their neighbours of the Stock Exchange?

November 27.

A SHAREHOLDER.

THE MINING INTEREST.

Sir,—I am desirous to offer a few remarks upon the present state of the mining interest, and to suggest a plan, the result of much experience and very extensive observation, which, I am induced to believe, if carried out in its integrity, can hardly fail to be of great advantage.

The great drawbacks to mining adventure, the limited number of shares into which each mine is divided, the want of a suitable market or place of sale and exchange, and the consequent paucity of fit and proper agents. These obstacles to the free circulation of mining property are, however, chiefly, if not altogether, referable to the limited number of shares into which the adventures are divided, a custom which took its rise from the period when the interest in Cornish mines was confined to adventurers on the spot, with their friends and connections. In the earlier periods these works were strictly private undertakings, though even then, the advantage of a division greater than was required by an equality of shares was perceived, and very soon adopted. As the mineral wealth of Cornwall became developed and strangers interested, the shares were still more extended, and have latterly reached 1024 and 2000 shares. But even this extension is quite inadequate to the proper development of the resources of Cornwall and West Devon; and it is important, therefore, at this juncture, when capital is superabundant, and seeking employment in many very hazardous and very dangerous channels, to enquire what are the causes which obstruct its application to the extraction of the great mineral wealth known to exist in this favoured region. How is it that with such vast treasures within six hours' journey of the metropolis of the world, so little has been done, and that almost at hap-hazard, without deliberate pre-concert, system, or design? To this inquiry we can return no other answer than the unfitness of the system which has hitherto been adopted in the prosecution of mineral adventure. In the beginning, when mining was a mystery known only to adepts, this system was necessary, if not advantageous—was, indeed, the only one possible in this, at that time, remote and almost inaccessible promontory; but at present, when the exploration of the past century have perforated whole districts—when science has done much to aid in overcoming difficulties formerly insurmountable—and when, instead of Cornish men seeking aid and finding it not, they might, and would command an ample share of the capital of the nation, it is felt and generally acknowledged that this system, however familiar from long habit to the early adventurers, is quite out of place as applied to an interest now becoming one of the most valuable of this country, and that it must be enlarged to meet the requirements of the times.

To secure a fair share of the abundant capital of this country, however, certain conditions must be observed. It is necessary to create a market and fitting agents for the negotiation of the business; and to do this it is desirable that new combinations, wider and more extended basis, should be adopted. Even for a railway in the vicinity of London, the great centre of exchange for all share property, it would be impossible, if divided into 2000 shares only, to find a market; and it is, therefore, self-evident that it would be still more difficult to find a proper and open market for the shares of a mine divided into 1024 parts situated at a distance; the condition of which could not be ascertained by any one in London, and the offer to sell or purchase an interest in which would raise the presumption that the undertaking had undergone a material change—for better or worse, of which the parties wishing to deal were alone cognizant. It is obvious that property so situated can never command a fair market value, and that even where dealings are possible, the disadvantages must be so great, that it may be questioned whether even those possessed of prior information do not lose as much by the crude and inferior system of dealing as they gain by their superior information. It is, therefore, a prerequisite in the establishment of a proper market, calculated to serve the best interests of mining adventurers, that new combinations should be formed upon a more extensive scale, and comprising a series of mines or metalliferous sets of varying character. It would be well to select from—1. Mines now at work.—2. Mines in which much work has been done, and still affording promise of wealth.—3. Mines of great promise in new districts; and—4. Sets in known or productive countries. Five, ten, or fifteen undertakings of this character, selected with care and judgment, might be formed into one combination, with a capital adequate to secure a thorough exploration.

The advantages of this plan are many and various. In the first place, these adventures are taken out of the ordinary and false influence of individual opinions, as well as of the no less injurious consequences of the inconvulsion or failure of individual proprietors. In the next place, by commencing with not less than 1000 shares, or the ruling share in 15 or 20, it cannot be doubted that success would be ensured, in some one or more, at a very early period. Indeed, with the great experience now gained, the mighty powers at the command of the miner, and the economy of labour and materials resulting therefrom, it would be surprising if early returns were not forthcoming from more than a third of the mines in the series, if only chosen with ordinary care and judgment. Another, and one of the main elements of success in this large combination, would be a subscribed capital equal to the full development of the whole of the mines forming such combination—one-third of such capital being paid prior to the commencement of operations. The causes of failure inherent in the present system of limited shares being thus altogether removed, from this larger combination, its chances of success would be proportionately increased; and, being divided into a great number of shares, would demand, and certainly find, a fair and open market according to their accredited or received value at the time, without any great or injurious difference of price between the buyer and seller.

Further to illustrate this matter in connection with the system now existing, it may be stated, as a fact well known to all interested and experienced in mining matters, that a mining share of the medium value of 100*l.* has been sold, after all the difficulties and delays incidental to these dealings, at 8*l.*; and when purchased at the same period of time, but through a different medium, could not be purchased for less than 112*l.*, a difference of 30 per cent., whilst Consols can be sold at 97*l.*, and purchased at 84*l.* 5*s.* to 84*l.* 10*s.*, being a medium difference of 7*l.* 6*s.* per cent. This large difference in price is further greatly enhanced by the difficulty and delay attending the transaction, by which the value of this description of property is very greatly diminished. On the system

here contemplated, however, in lieu of this enormous loss of 30 per cent. or more, a share of 100*l.* average value would readily be sold and repurchased, at a difference of from 2*l.* to 4*l.*, and, when the dealings were regularly established, even less.

Indeed, when it is considered that the Cost-book System offers, when properly administered, the security of limited liability with unlimited profits, and the great advantage of being free from stamp duty, it cannot be doubted that, under some such development as here pointed out, mining property will acquire great favour with capitalists. Neither would the advantages be wholly confined to the adventurers, but would be widely diffused through the whole district. To the merchant it would give trade; to the engineer, employment; to the lords, dms; to the farmer, a market; and to the population, employment and wages. It would greatly increase shipping, and in the production and carriage of stores, extend employment. Even to the few contracted minds, who seek their own good at the expense of others, and who, whilst all other interests are, like the Cornish boroughs, enfranchised, are yet living in the past, regardless of the advance of the age in arts, science, and commercial development, the realisation of this enlarged view, would bring advantages, even though unthought of, and, at first, unwelcome.

Should the views here frankly explained meet (as I am induced to hope they will) your approval, I shall have great pleasure in receiving such suggestions or remarks as may occur to you; and shall consider myself fortunate if I can aid in realising a plan which, if carried out in its integrity, cannot fail to confer great benefits upon the whole population of the extreme west.—T. ALLESTREE: Royal Exchange-buildings, Nov. 27.

THE MINERAL COURT MINE.

Sir,—Observing in the Journal of the 23d inst. a statement, that in Mineral Court Mine, of which I am the agent, we had 62 men stopping on tribute, I beg leave to correct the error. We have had this month 39 men engaged as tributers, and in stopping tin, in the backs of the 30 fm. level, which are turning out well. We have also had 23 tutworkmen sinking shafts and driving ends. Your correspondent seems to have added together the whole number of the men underground, and supposed they were all engaged in breaking tin, forgetting that our ends are driven and our shafts sunk not on the lode, but in the decomposed granite by its side. With the tin we shall raise this and next month I hope to meet the costs of the two months, but I have always avoided making positive statements of the future. I have every reason to believe we shall find a good and improved lode in the 40 fm. level, when we cut it in about a fortnight from hence.—J. DALE: St. Stephens, Nov. 26.

[ADVERTISEMENT.]

THE KINGSETT AND BEDFORD MINING COMPANY.

Sir,—An account of a general meeting of the Kingsett and Bedford shareholders having appeared in your Journal of the 22d inst., we shall feel obliged by your inserting the following statement of facts, arising out of that meeting.

As regards the statement itself, we shall only observe that it is partly garbled, and in some instances untrue. With such weapons we do not, at present, intend to grapple, but allude only to the fact of certain proxies having been produced at the meeting of the 11th, which were objected to from being unstamped. On this subject there was naturally a difference of opinion, and it was agreed that a case should be drawn and submitted to Mr. Collier for his judgment thereon, and that a "special general meeting" should be called for the 25th inst., for the purpose of receiving Mr. Collier's opinion. In the circulars that were issued (three or four days previously to the meeting) by the purser, it was specified as "the adjourned general meeting," and it appeared, when the meeting was formed on the 25th (which was fully attended by Mr. Vatcher's friends, who, it is understood, were provided with stamped proxies on his behalf), to have been so entered in the proceedings, by Mr. Vatcher. This alteration was immediately objected to by the mover and seconder of the resolution, and testified to by gentlemen of the highest respectability, who were present on that occasion, the correctness of whose testimony we now, individually and collectively (having been all present at the meeting on the 11th inst., and some of us have taken part in the wording of the resolution), unhesitatingly and unequivocally confirm. This alteration is most important, inasmuch as the words "special general meeting" for the purpose of receiving Mr. Collier's opinion," would confine the business of the meeting to that specific object; whereas, the words "adjourned general meeting" would enable the discussion and transaction of any subject connected with the mine to take place.

The resolution, which was taken in writing at the previous meeting, was then demanded, which Mr. Vatcher, although filling the office of purser, most prominently refused, and it was never produced. The inference to be drawn from this refusal is too apparent and palpable to require explanation. It tells its own tale, in reference to Mr. Vatcher's conduct, too plainly to render any comment from us necessary. We are simply dealing with facts, from which we leave it to those interested in this matter to draw their own conclusions.

With these two startling facts, we leave the subject in your hands, hoping, as respectable journalists, you will expose deceit whenever attempted to be practised, and assist in rescuing the mining interest from the great injury which threatens it.

We would simply add to this statement that, at the "special general meeting," held on the 25th, before referred to, the opinion of Mr. Collier was read, and the chairman stating that the business was concluded, declared the meeting dissolved, and, with the principal shareholders, left the room. It is understood, however, that a chairman was subsequently appointed, and some business pretended to be transacted, which, whatever it may be, we protest against as being altogether irregular and illegal. We remain, yours, &c.,

W. HARDING, Lieut. Col. T. STAINIER.
H.M.S. W. ASH.
J. FOLLETT. F. T. TSCHEMAKER.
C. K. WEBB, surgeon. J. FULFORD, Capt. R.N.

Exeter, Nov. 27.

KINGSETT AND BEDFORD MINE.

Sir,—May I request the favour of your insertion of this letter, in reply, in some measure, to the long article on the above mine, in last week's Journal? After the general meeting, on the 11th inst., there appears to have been a hole-and-corner meeting of the committee (of a few friends on the right side), who, it appears, concocted this absurd resolution, as inserted in your last week's Journal, eulogising Mr. Vatcher's conduct, which has here been held up to derision. At the special meeting on Monday last, called for the purpose of receiving Mr. Collier's opinion, which, after being read to the meeting, a resolution was proposed by Dr. Lang on other matters, which the chairman declined to put to the meeting—it being special to receive Mr. Collier's opinion only, and at once dissolved the meeting. Great confusion was immediately the result, and the chairman, together with a large body of influential shareholders, immediately left the meeting. A few, however, remained, holding but a small interest in the undertaking, with the exception of Mr. Vatcher, who figured most prominently, placing Dr. Lang in the chair. I also remained with an adventurer, entertaining the same views with myself, protesting against the legality of subsequent proceedings. One book only was produced at the meeting, although the others were demanded. I requested an inspection of that book, but was refused. A call of 6*s.* per share was made by those parties, without any accounts being produced to show how the money previously received had been expended; and I am told the auditors decline to audit the accounts.

This state of affairs cannot last, that is certain; but how is confidence to be restored unless the management is placed in proper hands? For a broker to be "pursuer" is not right; rigging the market, selling shares at 2*l.* 10*s.*, and telling the shareholders, just at the same time, at a general meeting, that he had purchased at 20*s.*, will never do. For a shareholder to be denied the sight of the books, or allowed to take a list of adventurers (and I am not the only one), and to make calls on the shareholders before they are allowed to investigate how the money has been spent, is too palpable to be suffered to continue by any parties interested in the success of the undertaking. Absent adventurers would never give their proxies to such parties if they knew all; of this I am equally certain.

A pretty state of things this unquestionably is; and one is induced to ask, are matters all right, and can any confidence exist in such parties having the management? The cooking of railway accounts are of too recent occurrence to be forgotten; and I shall feel very much obliged to you by your protecting the mining interest by your powerful pen.

Castle-terrace, Exeter, Nov. 28.

JOHN JURY.

ANGLO-CALIFORNIAN GOLD MINING AND DREDGING COMPANY.

Sir,—At the time of the first excitement of the news from California, many of the inhabitants of our little locality conceived the idea of emigrating to that favoured region; and, after a few years' toil, returning to our native land, if not blessed with affluence, at least with a sufficient competence to smooth our downward path in the vale of life. Subsequent accounts which appeared in the different journals, showed us that the attainment of gold was not attended without danger, and that the precious metal, when obtained, before it could be realised, had to pass through an ordeal, in which tomakawks, bowie knives, and revolvers, formed the principal features. This induced many to pause in their determination, and to return again to the peaceful, though scarcely profitable, pursuits in which they had hitherto been engaged. An advertisement shortly afterwards appeared in the local journals, announcing the formation of the "Anglo-Californian Gold Mining and Dredging Company," which offered shares at the low rate of 10*s.* each, guaranteed the subscribers from further liabilities, and informed them the prospects were such that a dividend would probably be paid in the month of October, 1850. The land had been obtained; Mr. Palmer, the company's engineer-in-chief, and Capt. Tremaine, were there; in fact, at that period, directors were appointed in California, and it merely required miners to be sent from England to develop the company's vast possessions or concessions; indeed, they had engaged a real knight, a commander of the Royal Navy, and governor of Prince Edward's Island, to superintend their operations at the mines. Here, then, was an opportunity not to be lost; the wealth of California, by a judicious outlay, was placed within our grasp, without the dangers of the seas, the difficulties of the prairies, and the other numberless evils which beset the adventurous individual who was courageous enough to go to the diggings single handed. The agents were active, subscriptions were offered, and as eagerly received, and I, Sir, became one of this powerful and well organised company. In due time we received further reports; our hopes

were excited to the highest pitch; our dividend was to be paid in October; we should be purchasers of gold dust; our operations were to be carried on on a colossal scale; and I, an humble shareholder, and a family man, indulged, in common with my wife and daughters, in anticipating a considerable amelioration in our position. Indulging in these golden dreams, you may imagine how we were taken aback by the publication of "It is not all gold that glitters," in your Journal, of the 26th of Oct.; and how cruelly we have been disappointed at seeing that the chairman, Sir Cavendish Stuart Rumbold, Bart., puts forward no more satisfactory refutation to the charges therein alleged, than appears in the Mining Journal of the 9th inst. The company therein state that they have been duped by a knave (Palmer), and consequently could not have acted in collusion with him, as your writer infers; surely, previous to appointing Mr. Palmer to such a place of trust, common prudence would have suggested they should have had some guarantee to his respectability, as well as capability. His ignorance of mineralogy, so clearly shown by you, proves that he had not the requisite knowledge for carrying out any mining enterprise. From whence did he obtain his title of "engineer-in-chief?" Surely he must have shown some legal documents which gave him a right to the property of the "lithograph," before the astute directors, Messrs. Williams and Chevin, advanced him any of our capital. The question which you mooted, is not attempted to be answered—namely: Have the company any real property in California, or are we supposed to have embarked our money merely to negotiate with the Mariposa Company?

An advertisement has appeared this week, stating that Sir Henry Vere Huntley has returned, and presented his report. It will be placed immediately in the hands of the printers, and circulated amongst the shareholders, with the least possible delay. If Sir H. Huntley is not a myth, and has really returned, why is not a public meeting called, so that we may hear his report, *vis voce*, without waiting for any garbled or concocted statement which may be put forward? If the directors are so honest as they pretend to be, they will see that this is the only resource they have left to clear themselves with the public, and regain the confidence of the shareholders. The directors, according to their own showing, have been guilty of great carelessness and credulity, and, consequently, though they may have erred innocently, have proved themselves unworthy of the trust reposed in them. For myself, I now consider I am but one of the many dupes of the duped; attacked by the gold fever, I bit the hook, as another gudgeon would do. On calm consideration, I see that there is none to be blamed but myself. The capital required was 50,000*l.*; a man of common sense would have known this sum was so small, that had the projectors had any *locus standi* in the metropolis, it could easily have been obtained there, without hawking shares in the provinces and abroad, as I see by the Journal of Oct. 26, an agency office is established in Paris. The shares issued are all paid up, and we are guaranteed from further liabilities: the company is only provisionally registered. I am not versed in legal technicalities, and should wish to know how we are to obtain redress from those who have obtained our money. It must be admitted that it is hard they should suffer from Mr. Palmer's duplicity; but had it not been for their supposed guarantee, the provincials would not have advanced their little savings in this dubious investment. No one will hail more than myself a satisfactory explanation of the present charges against the company, which their own communication has corroborated rather than otherwise. To do away with this, let us meet Sir H. Huntley publicly, and know on what footing we stand. Until this takes place, the public will doubt all reports which may be issued by Mr. Lake Williams, even if substantiated by Sir Cavendish Stuart Rumbold, Bart.—ONE INTERESTED: Leicester, Nov. 28.

KINGSETT AND BEDFORD UNITED MINING COMPANY.

In our last Number we made some remarks on the affairs of this company which are still, unfortunately for the shareholders, in a rather troubled condition. Our comments were, of course, founded upon the details which, from more than one quarter, had reached us, of what had occurred at the late meeting. On referring to that article, it will be seen we expressly stated that we did not consider ourselves sufficiently in possession of the facts to be able to form a conclusive opinion; and the course, therefore, we endeavoured to take was that of moderator between the opposing parties, on the rational ground that no good could possibly arise from dissension, and the indulgence of angry feeling. From an advertisement in another column, on the subject of the mine, it appears that the statement given last week is characterised as "partly garbled, and, in some instances, untrue;" but inasmuch as no inaccuracies are specified, nor proofs afforded of the "garbling" and falsehood thus summarily alleged, we may be well excused from defending what is so weakly attacked. What follows, as will be seen, refers to a meeting called for the 25th, for the purpose of receiving Mr. Collier's opinion on the question respecting proxies. With this meeting our article, of course, had nothing to do, and the statement, though it impeaches its truthfulness, really leaves us nothing to explain or vindicate, but simply to deal with the meeting on the 25th as a new feature. The charge brought is, that "a special general meeting" was surreptitiously convened by Mr. Vatcher and his friends into "an adjourned general meeting," the difference being this—that by the former the business would be simply restricted to receiving Mr. Collier's opinion, while the latter would allow of the introduction and discussion of other matters connected with the mine. The result was more bickering and hostility, leaving it doubtful, moreover, whether the meeting was, after all, really meant to be special or general. Our correspondents assert the former, and appeal to the resolution passed on the 11th, which Mr. Vatcher, they state, peremptorily refused to produce. We have appealed to the resolution also, and find simply these words:—"Resolved that this meeting do adjourn to this day fortnight, at 12 o'clock," in which, it must be confessed, there is nothing very "special" on which to found so hostile a demonstration as that which appears to have been made on Monday. We would willingly render justice to both parties in the quarrel, although it is tolerably clear that it would be difficult to satisfy either. At most, the "advertisement" can only be taken as a one-sided statement, and it is obviously liable to a rejoinder from the other side. This is, indeed, more than probable, since it seems that at the meeting on the 25th a second chairman was appointed, and some business "pretended to be transacted"—in which fact, though brought in as a tailpiece to the advertisement, and protested against as irregular and illegal, it is easy to discern the seeds of much future disagreement and recrimination.

One thing, we doubt not, will be fully admitted—viz.: that if the dissensions of the company cannot be settled among themselves, no efforts on the part of third parties can avail for the restoration of harmony. They must act as their own "peace convention," if they would enjoy the benefits of united action and quietness. Without being partisans of either, we are bound to listen to the statements emanating from both sides, and to derive, if possible, a correct estimate of their value. To elicit the truth which lies between both is, doubtless, difficult, but, perhaps, not quite impossible; and we dare say, from what has now appeared, those who are interested in the dispute may be able to form pretty accurate conclusions. The immediate actors in the quarrel are probably not in a condition to render justice to each other's motives, nor, indeed, are they agreed about plain facts; but, perhaps, the "absent shareholders," whose proxies have been used so unceremoniously, will be enabled to view the matter with more coolness and impartiality. For our own part, we would fain see a greater disposition on both sides to forget all past differences, in the firm conviction that, unless something is mutually yielded, the consequences will be fatal to the prospects of the shareholders. It may be expecting too much from human nature to anticipate the adoption of this wise course, but it is, nevertheless, right to commend it to their notice, as the only one which can be of service in their peculiar situation.

Since the foregoing was written, we have received a letter from Mr. Jury, on the affairs of the company. Instead of dwelling further on the vexed questions which are agitating the shareholders, and warring against their interests, we prefer inserting the communication of Mr. Jury, and leaving it to tell what weight it may on the points at issue. We confess we see no present chance of the restoration of good feeling, and, consequently, no likelihood of a fortunate result as regards the speculation—a matter just now, probably, deemed by the high contending parties of far less moment than the defeat of their opponents. We ought, perhaps, to state that we have also received a letter from a lady shareholder, inveighing very eloquently and vehemently against the conduct of Mr. Vatcher, relative to some shares she alleges she was induced to purchase on the strength of that gentleman's representations, and conditionally, as she states, that there were to be "no more calls." Unfortunately "no more calls" were made, and hence the strong display of feminine resentment in her letter. On this communication we shall only observe, that her purchase of shares, "provided there would be no more calls," involves a curious condition, and of which neither pursuer, nor any one else, could guarantee the fulfilment. As she promises to carry the case to the Stannaries Court, we shall probably learn, in due time, its real merits.

MINING IN SPAIN.—We continue to receive most flattering accounts of the progress of mining operations in Spain. Silver mining is now resuming its ancient importance, and in the *Heroldo* we find the last returns of produce of the Huelmancinos mines. In October the three mines of Fortuna, Santa Cecilia, and La Suerta, gave 133 arrobas, or 3525 lbs. of silver in bars; for November, 60 arrobas, or 1500 lbs., have been already sent to the Madrid Mint, and it is supposed that the month's returns will not be below those of October. The yield is, therefore, now at the rate of 150,000*l.* yearly, nor is this surprising, for the ore yields 2000 ozs. of silver per ton, and at present the works cannot produce more than a limited amount. The ore sent to the English factory is about 22 tons per day, but when the new factory of La Oportuna is finished, the yield will be much increased. The ore ground abounds more or less with shreds of silver, and the mine will, it is supposed, equal any of the most famous of Spain or South America. Silver ore is likewise very abundant in the Ametad Mine, belonging to the Estelira Company. The ore is a micaceous spar, capped with quartz, and underneath are bunches and veins of silver.

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—There is no change to notice in Field's engine-shaft, sinking under the 80 fathom level, east of the said shaft. The lode in No. 1 winze, sinking under the 70 fathom level east, is just as last reported, and cannot sink it deeper until the level is drained by the 80 fm. level. The lode in No. 2 winze, sinking under the 70 fm. level east, is 5 ft. wide, 3 ft. of which is nearly solid copper ore; the remaining 2 ft. on the north part is copper and jack—worth in all from 10*l.* to 12*l.* per fm. The lode in the 70 fm. level, east of engine-shaft, on the part which we are carrying, is 4 feet wide, very good—worth for copper ore from 10*l.* to 12*l.* per fathom; then there is apparently from 2 to 3 feet on the north part, copper and jack mixed, which part will be broken by itself; this will produce about 5 tons per fm., worth 20*l.*—the whole lode may be estimated at 140*l.* per fm. The lode in the winze sinking under the 60 fm. level, west of Wyld's shaft, is 6 ft. wide, producing from 14 to 16 tons per fm.—worth from 10*l.* to 12*l.* per fm. The lode in the 60 fm. level, east of the said winze, is 4 ft. wide, producing from 1 to 2 tons per fm.—worth 10*l.* per fm. No change in any other part of these mines since my last report. Our next sale of copper, I expect, will be much as last.

BEDFORD UNITED.—We intend driving by the side of the lode, until setting day, in the 115 fm. level, east and west of Andrew's winze. The lode in the 105 fm. level east is 4 ft. wide, and worth 10 tons of ore per fm. In the 90 fm. level the lode remains without alteration. The lode in Arscott's winze, in the 90 fm. level, is worth 7 tons of ore per fathom. There has been no lode taken down in the 80 fm. level east. The pitches generally are looking well.

BISHOPSTONE (SILVER-LEAD).—The following report on the present state of the mine has been received from Mr. Evan Hopkins:—It affords me much pleasure to acquaint you that I found your mine much more favourable than I expected in the district of Gower; not but what the formation in which the lodes are enclosed is congenial to the production of lead ore—being the metalliferous limestone, in which the principal portion of lead is found in England and the continent—but owing to the limited extent of the available calcareous bed, and apparent unproductive character of the southern rim of the South Wales carboniferous limestone. It is true, lead ore has been discovered near Bishopstone, Gower, and other places in this formation, but not in any quantity to warrant extensive explorations. However, in the district in question, Bishopstone, the limestone is so much intersected with north and south faults, with numerous branches and joints filled with sulphate of lead as well as the carbonate, together with the disturbances in the stratification, by an oblique anticlinal axis, which has given a southern dip to the limestone beds towards the sea, rendering it a favourable point for a deposit of mineral. There are many traces of ancient workings in this locality, showing that large masses of lead ore were extracted; some parts were worked by the Romans. The present company commenced their operations in the line of the main fault, or great cross-course, some distance from the present workings; the lead ore was there found more or less disseminated, both in it and the bordering rock; but within the limits of the trial works where there were made the ore was not sufficiently aggregated into solid masses to render it a safe speculation. In following the above main cross-course towards the sea, we find an anticlinal axis, where the beds become steeply inclined to the south; this place being a far more favourable point for the accumulation of mineral than the former, and the present workings, it was very properly decided to work more properly in this line, and to explore it in preference to the place first commenced upon. The old adit was cleared and extended, and a new shaft sunk 10 fms., and, considering the limited extent of the workings, a very considerable quantity of sulphate and carbonate of lead have been discovered; but instead of opening new ore ground, as was first expected, it was found that the old workings had been carried down 10 fms. under the adit, by the aid of wooden pumps; consequently it was necessary to sink deeper, to obtain an unworked and productive lode, and the present indications fully warrant such being carried out. The surface and underground workings are arranged, and will do for the time being; but after the shaft, which is now being sunk, reaches the deeper levels, I expect a larger pumping engine will be required, and the present one confined to winding. Nearly all the bunches of ore discovered south of the oblique cross-course, down to the 10 fm. level, having been taken away, the larger portion by the ancients, before the mine can be rendered in a state to produce regular returns, the shaft must be sunk below the 80 fm. level, and the lode opened several fms. in extent; whilst the lower part of this lode is being worked, the southern shaft will be commenced with the view to explore the lode, and to indicate another bunch of ore will be found and rendered available. There is also another important part of the mine where the conditions are favourable for making bunches of ore, many strings being seen on the surface—namely, near the oblique cross-course, on the south west side, which can be easily explored from the deeper levels. Having entered into all the above points with Captain Henry Francis and yourself, on the spot, I need not say more on this occasion, except to congratulate your company in being so fortunate with respect to the management, Capt. Henry Francis being most efficient and zealous in his duties, concentrating all his energies to forward your interests.

BODMIN MOOR CONSOLS.—Our new lode is still improving and getting larger. The prospects mentioned in last week's report will be fully borne out.

BRYN-ARIAN.—The lode in the 20 fm. level, driving west, is much as last reported—large, with a mixture of ore throughout. The lode in the 10 fm. level is 5 ft. wide, and yielding about 5 cwt. of ore per fm.; the slope in the back of this level will yield about 1 ton of ore per fm. The adit level, driving west, is in a large lode, yielding but little at present; the slope in the back of this level is yielding 15 cwt. of ore per fm. We have taken out timber and commenced operations for the erection of wheel at Penarn. There are from 22 to 23 tons of ore at surface, half of which is clean.

BUTTERDON.—The engine-shaft is sunk 20 fms. 2 ft. from surface, ground improved a little for sinking; the branch which I referred to in my last report is still producing good stones of lead. The engine continues to work remarkably well. If our prospects continue, we shall see the lode on or before the next meeting.

CARTHEW CONSOLS.—The stopmen continue to make good progress in sinking the engine-shaft, and will, I doubt not, in the whole of next month get it down to the 85 fm. level. In taking down the lode in this week, it is found to be somewhat disturbed by a slide. The lode in the north end, 75 fm. level, continues to show well, without diminution in width. I find no particular alteration in any other end. The lode in the south end, 65 fathom level, is fast gaining in size, but is not at present rich. The tribute pitches continue to show well.

COPPER BOTTOM.—This mine was resumed in the latter part of the year 1849; since that time a 70-in. cylinder engine has been erected, pitwork fixed, and the water and rubbish cleaned out of the mine, both on the south and north lodes; the bottom levels, or depth of the mine, being on the south lode 40 fathoms under the adit, or 54 fms. from surface, and that of the north lode 30 fms. under the adit, or 33 fms. from surface. In these very shallow levels a pretty deal of ground has been opened. In driving east at the south mine, in the 40 fm. level, towards the junction of killas and granite, we have recently met with stones of very rich yellow ore. In the 20 fm. level west a cross-cut has recently been driven through the lode, which we found to be 3 ft. wide; this, although only 5 ft. long, produced 2 tons of ore; since that very little more has been developed, in consequence of bad air. We are sinking a winze from the 10 fathom level, which we expect to communicate in a fortnight, when the 20 fm. level will be again resumed. We have also passed over a branch of yellow ore, from 7 to 8 in. wide, and from the appearances in this point of the mine, good results are naturally and fairly expected. The north lode in the 30 fm. level has produced a great many tons of very rich ore, where we shall have to pass under productive ground for 60 fms. in length in our 32 fm. level, which is commenced driving. Some few fathoms further north we are driving on a lode in the 10 fm. level, which runs in, and parallel with, an elvan course; this lode has been opened on in this week, and is a fair tribute ground. The south lode is intersected by cross-cuts in the 20 and 32 fm. levels, where there is every probability of meeting with great success. There are, independent of the lodes already named, several others found at the surface, which have not yet been developed, but will ultimately be intersected by cross-cuts, and at a small expense, from the present works in operation, on which the public are very sanguine of great success. I must further observe, that the mines in the north—viz.: Greener and Wheel Abraham—were very productive, but not until they reached some 70 or 80 fms. in depth. Under that level the lode was intersected by cross-cuts, and the mines now at work in all directions about this locality are doing well, and promising to be still more valuable as the operations progress. Copper Bottom being situated in the midst of these mines, with a very congenial stratum for mineral, accompanied by elvan courses, cross-courses, slides, &c., cannot ultimately fail to remunerate the spirited shareholders of this mine for their investment. A good engine, sufficient pitwork, flat-roofs, and other materials, being erected and laid in the mine, will enable the party to proceed with little expense, which will undoubtedly terminate to their great advantage.

CWM ERFIN.—The 30 fm. level east is in a good lode, yielding more than 2 tons of ore per fathom. The 25 east of Robert's winze, is small but promising, with a little ore. The produce from the slopes is on the increase: 31 tons of ore were sampled on the 18th instant.

DEVON AND COURTENAY.—We have cut the eastern part of the south lode, in the 60 fm. level, and have set the men to drive on it at 5*l.* 5*s.* per fm., stated for the month; there are some good branches of ore in it, but it is quite in an unsettled state, being disturbed by the cross-course. I have set to the men driving south on the cross-course, at 3*l.* 5*s.* per fm., for the month east, or out a lode. There is very little alteration in driving west; we are still getting some good stones of ore from the lode in this part. We have hauled a good batch of work from the tributaries, and they are still getting wages.

DEVON GREAT TINCROFT (DARKMOOR).—An important improvement has taken place in this mine in the adit end within the last week. About a month since this mine was inspected by Capt. Carpenter, of Wheal Anderton; that gentleman gave a very favourable report of the lodes and strata, and more particularly alluded to the lode in the adit end driving east of cross-course, as having all the appearances of a good change taking place, and I am glad to say, his opinion is now fully borne out; at the time of his inspection the lode was sufficiently wide to enable him to make a good estimate of its value, and he was not far from the mark. The lode is now worth from 20*l.* to 25*l.* per fm., and a further increase in value is expected shortly, as a lode has been sunk from 20 to 30 ft. deep, 15 fms. before the end, and a capital lode gone down; therefore, judging from present appearances, there can be no doubt when the end is extended east home to the shaft, the lode will be found to be worth full 30*l.* per fm. The cross-course before alluded to runs south-west and north-east, and as we are near the eastern side of the cross-course, we may fairly expect a good bunch of tin as a natural consequence.

EAST CROWDALE.—The 40 fm. level east has again improved, the lode now is large, and producing good saving work; the lode in the shaft has also improved. At these points the lode is decidedly better in character, and I anticipate having a good level in the 30, going east. In the 40 fm. level west the lode is poor, but kindly. Our lode above the 40 fm. level, though 8 ft. times very fastening and yielding good stones of tin, has not been so regular and well-defined as at present. The tribute department is much as usual.

EAST DAREN.—The lode in the 10 fm. level east is 6 ft. wide, yielding 1½ tons of silver-lead ore per fm. The 20 fm. level has just been set to drive east.

EAST SHARP TOR.—Since my last we have intersected a wall on the north part of the shaft, being very regular in its dip, or underlay, which is south, but have not as yet opened on it sufficiently to enable me to give an angle of declination. I hope by my next to be able to ascertain what the underlay is likely to be; also to cut through the wall, and see whether or not there is more lode to the north; I am of opinion there is. There is no alteration in the character of the lode since last reported on. The water has considerably increased within the last week; we are obliged now to work the engine 12 revolutions per minute to keep it.

EAST WHEEL GEORGE.—The lode in the 12 fm. level east is 3 ft. wide, composed of muddle, peach, spar, and spots of ore; the lode in the same level west is much the same as last reported. The lode in the slopes east of shaft is improved, worth 5*l.* per fm. We are not making that progress in sinking the engine-shaft that I could have desired, in consequence of the shaft being very wet, and the ground rather hard—killas, intermixed with capel and spar. We sampled on Thursday week, October ore, 19 tons 0 cwt. 3 qrs.

EAST WHEEL REETH.—We have cleared up the shaft to the 10 fathom level, and find there is one level driven north-east, towards Wheel George bottoms, and another driven south. In my last, I told you I had set a pitch on a tributary in the eastern end of the cross lode, and am happy to say the men cut a most promising bunch of tin in the bottom of the pitch on Friday, and if it holds down in the end as it shows, they will get 10*l.* or 15*l.* this month, which will open the ground, and be of great advantage to us. This pitch is about 4 fms. to the north of Wheel George bottoms, and the best of the tin was always considered to be left, and a pure of men have been offered to take the bottoms, at 6*s.* 8*d.* in 1*l.*, but I do not intend to set it on tribute yet. I will see for myself in a day or two, and if I find it as good as reported, our mine will be worth a considerable sum. Wren's bunch of tin has made a great noise in the parish, and not one of the adventurers here will sell a single share; in fact, I have such an opinion myself of it, in consequence of this bunch of tin, and Wheel George bottoms being all tin ground from that place north to the extent of our set for nearly a quarter of a mile, that I would not part with any of my shares for 2*l.* per share, or more. The adventurers down here are all in high spirits. The stones of tin I broke from the bunch are worth 8*s.* per barrow.

ESGAIR LEE.—The counter lode in the deep adit, east of Owen's winze, is poor at present, but is looking more promising, with an increase of water. The lode in the 12 fathom level, east of Morgan's winze, continues without alteration, and yields 3 or 4 cwt. of ore per fm. Slopes much as usual, producing 1 ton per fm.; 25 tons of ore were sold this week at 11*l.* 3*s.* 6*d.* per ton.

HEIGNSTON DOWN.—No lode has been taken down in the 45 fm. level east of Doidge's winze, since last reported on. In the winze sinking below this level the lode maintains its size and character, being fully equal with last week's report. The lode in the 35 fm. level is without important alteration; the rise in the back of this level has somewhat improved in the past week; there is no change in the cross-cut south. High water in the engine-shaft, I am glad to say, made complete; the pitwork is fixed, and divided its present bottom—viz.: one foot below the level of the engine-shaft, driving west on the course of the lode, which is 3 ft. wide, of very promising character, and carrying a small proportion of copper ore.

HOLMBUSH.—The ground in the engine-shaft sinking below the 120 fm. level is more favourable than it was last week, and we hope near 3 fms. will be sunk this month. The ground in the 125 fm. level cross-cut south, towards the shaft, is much the same. The ground in the north cross-cut, in this level, is favourable, but very little has been explored since last reported on, in consequence of the level being filled with stuff, so that we were obliged to remove the men for awhile, until it is cleared, to commence sinking a winze below the 100 fm. level, on the flap-jack lode, particulars of which will be given hereafter. The lode in the 135 fathom level, west of the diagonal shaft, is 3 ft. wide, producing 3½ tons of copper ore per fm., of rich quality; the slopes in the back of the level will produce about 3 tons of ore per fm. The lode in the 120 fm. level south is 3 ft. wide, composed of hard and soft quartz, prisms, and stones of lead. Since last week we cut in further west, and discovered another part of the lode, making it the size above-mentioned. The flap-jack lode, in the rise above the 120 fm. level, is 20 in. wide, producing stones of copper ore, and if the air would permit we should immediately commence driving a midway level eastward, to come under the course of one now wrought on in the bottom of the 100 fm. level. The same remarks will apply to the 120 fm. level, east of the great cross-course, on the flap-jack lode, as we reported last week; however, desirous it may be to resume the driving of this level, we cannot do so before next Monday, when six men will be employed to force it, or to intersect the shoot or course of ore alluded to above. The flap-jack lode, in the 100 fm. level, east of the great cross-course, is 4 ft. wide, so far as it is laid open, but we have not yet reached or seen the south wall; the part of the lode visible will produce 3 tons of copper ore per fathom; the lode in the winze sinking in the bottom of the level is 5 ft. wide, producing 3 tons of copper ore per fathom, and of good quality. The water is of little trouble to us, but the foul air has somewhat impeded our progress at particular times, when the weather has been rough, and especially at the commencement of the week, after the damp has set in during the time the work lay dormant, but we hope this hitherto inconvenience will be settled in a very short time. The pitch in the back of the 100 fm. level is still productive, and 4*s.* in 1*l.* is a fair tribute for it.

KESWICK.—At Brandley, the 10 fm. level rise is looking better; there is also a little improvement in the Salt level tribute pitch. At Northwinth, in the 10 fm. level south, we have had two men clearing out and examining the level, and have discovered two strings of ore, varying from 2 to 4 in. of solid ore in the level, which we are sinking upon; the discovery of this ore is a greater inducement to push on the 17 fm. level, which we began with the intention of driving under this level. At the 17 fm. slope, on string, the place of ground we have been sloping has been cut through to the bottom level, but we still have ore in the north end; in the bottom level we have cut the pipe of ore which we have been looking for; at present it varies from 4 to 5 inches of spangled ore, and will yield about 8 cwt. to the fathom.

KIRKCUDBRIGHTSHIRE.—Stewart's shaftmen are fixing the lift, &c., in order to drive the 74 fm. level. The lode in the 62 end, west of Keith's, is 5 ft. wide, yielding good stones of ore. The lode in Gilpin's shaft is 6 ft. wide, worth 15 cwt. of lead ore to the fm. The lode in the 50 end, west of Gilpin's, is unproductive. The lode in the 40 end, west of ditto, is large and kindly, with fine stones of ore.

LAMHEROEE WHEEL MARIA.—I have just come up from undergo and accompanied by Capt. Tabb, and as probably I shall not be able to attend your committee, I beg to forward the enclosed brief report, with a box of the quality of the ore from the 30 fm. level. The stuff excavated from the lode is not throughout of similar quality, much of it being coarse, with crystallized muddle, &c. The winze is now down 4 fms., and we shall continue sinking on until we get to the 10 fm. level; in the meantime, a shaft will be commenced over it from the surface, to form a direct communication, which we have dialed, and find to be 9 fms.; and a winch will be erected, to enable us to sink on the lode with greater speed, the drainage being done by water barrels. The lode is continuous, being from 6 to 7 ft. wide, and bears unmistakable evidence of a first rate ore. We have commenced sinking in a small, and make marketable evidence, as it is raised, and as we have to erect a few temporary sheds, it will take a little time—say, three or four weeks—before things are in course to return to the surface. I have not sufficient time for this post to enter fully into the details of the other part of the mine, but the principal matter, the tin lode, is turning out favourably; in taking down the lode which was commenced this morning (27th inst.), the appearance of various leaders of tin are very conspicuous, a continuation of which I hope to see in the 50 fm. level when it is more opened upon; but at present the level is not extended far enough.

LLWYNMALEES.—The rain we have had during the week (it having fallen in torrents, without intermission, for 36 hours) has so increased the water in the mine, that the 14 fm. level and London shaft are both idle. I trust we shall get the water out of the London shaft in a week, provided the weather moderates. The lode in the 14 fm. level was, on the 21st, the same as last week. The lode in the western winze ditto. The 14 fm. level west is in strong ground. The slopes over the 8 fm. level, from 11 to 17 fms. west of the western winze, have much improved. The slopes over the 8 fm. level, from 5 to 11 fms. west of western winze, are still good, but I do not expect them to continue much longer so, being within 7 ft. of the soil in some places. The dressing proceeds steadily.

NORTH BASSET.—The lode in the 82 fm. level is 5 feet wide, a good lode of grey ore. The lode in the 72 fm. level is 2 ft. wide, composed of spar and yellow ore. In the winze sinking under the 62 level the lode is 3 ft. wide, composed of yellow ore; in the 52 level, the lode is 5 ft. wide, composed of grey ore and goosan. The lode in the 32 level, 52 ft. shaft, is 8 in. wide, composed of goosan and good stones of grey ore. No change in any of the tributary operations. Tribute pitches still looking well.

PEN-Y-BANK AND EYGLOND (UNITED).—The lode in the adit level I driving east from the cross-cut, is from 4 to 5 feet wide, composed of killas, spar, and several thin branches of lead ore. We are still clearing up and securing the winch-shaft at Pen-Y-Bank, but find it hitherto very troublesome, as the timber put in by the old men became rotten, and several places had run together.

PETER TAVY AND MARY TAVY CONSOLS.—Since our last the sump-men have cut down 3 fms. from the 32 fm. level. In stepping down the winze the lode has widened very much, being 2 ft. 6 in. wide, and composed of a beautiful spar, peach, and stones of rich copper ore; also the lode to the west of the cross-course is much larger, being of the same kindly character; it is deemed desirable, when we have got a few fms. clear of the winze, to drive a level westward with all force. The machinery is all working exceedingly well.

SOUTH TOLGUS.—The 54 fm. level west is 2½ feet wide, very promising, and yielding some good stones of ore. The 54 east is yielding 1 ton of ore per fm. The 42 east, 1 ton per fm. The 32 west, 1 ton per fm. The 12 west, 1 ton per fm. The 12 east, 1 ton per fm. The south lode in the adit east yielding some ore.

TRANNACK AND BOSCAWEN.—In the 20 fathom level, west of Hampark shaft, the lode is 4½ ft. wide, worth 10*l.* per fm., and driving for 30*l.* per fm.; the lode is set on tribute at 8*s.* in the 1*l.* In sinking the shaft from the 20 to the 30, the lode is 4 ft. wide, holding very rich quality copper ore, price for sinking 80*s.* per fm.; the 30 fm. level is extended east 5 fms., in a lode yielding excellent stones of yellow and black copper ore. In the 30 west driven 9 ft., the lode is 4 ft. wide, yielding good copper ore, and having a much better appearance than at the level above; a cross-cut has been commenced at this level at 30*s.* per fm., in a good strata towards Lewis tin branches, which may be intersected about the latter part of January next, this being the principal object at the commencement of the mine. There are 40 tons of copper ore, worth 320*l.*, and the 161 adit has been cleared through the old mine, and are now driving the deep adit level, north from Round's shaft; the lode is 18 in. wide, producing good work for tin. At the south part a lode has been discovered 20 in. wide, which will set at a low tribute.

TREBELL CONSOLS.—There is no alteration in the mine since my last. The ground in the shallow adit (which we are driving) is much as at our commencement—set at 4*l.* 4*s.* per fathom. I then calculated 18 fms. to drive to reach the north lode, if it underlay north as it appears by the excavation made on it at surface; two more men should be put on, so that no time should be lost in intersecting the lode as early in the spring as possible; by cutting this lode, as before stated, much tin is likely to be raised. The water will also be drained, so that the most advantageous position for the erection of machinery would be known, and time might be lost in putting on two extra men.

TRELAWNY.—At Phillips's shaft, in the 62 end north, the lode is 2 feet wide, worth 7*l.* per fm. In sinking the shaft from the 20 to the 30, the ground is rather stiff at present. In the 92 north the lode is 3½ ft. wide, worth 10*l.* per fm.; in the same level south the lode is 3 ft. wide, worth 8*l.* per fm.; in the 82 north the lode is 3 ft. wide, worth 7*l.* per fm.; in the winze in the bottom of this level the lode is 3 ft. wide, worth 10*l.* per fm. In the 72 north the lode is 2½ ft. wide, worth 8*l.* per fm. At the north mine, Smith's shaft is sunk 10 ft. below the 55 fm. level, and the lode is now leaving the shaft. In the 55 north the lode is 1 ft. wide, worth 5*l.* per fm.; in the same level south the lode is 1 ft. wide, worth 4*l.* per fm. In the 40 north the lode appears to be more settled, with some spots of lead in it. There is nothing new to remark in our slopes.

TRELEIGH CONSOLS.—Christie's Lode: In the 100 fm. level, west of Garden's, they are rising against the winze in the bottom of the 90 fm. level; not much ore. In the 90 fm. level, west of ditto, the lode is 3 ft. wide, worth 18*l.* per fm.; in the winze below the 90 the lode is 1 ft. wide, but little ore; in the winze above the 80, west of Harrie's winze, the lode is 2 ft. wide, worth 8*l.* per fm. In the 80 fm. level, west of cross-cut, on the north part, the lode is 15 in. wide, with stones of ore. In the 70 fm. level, west of Garden's, the lode is 10 in. wide, with stones of ore. In the 52 fm. level, east of Parent engine-shaft, the lode is 15 in. wide, with stones of ore; in the same level, west of ditto, the lode is 1 ft. wide, not much ore. In the 40 fm. level, east of ditto, we are driving through a disordered ground. In the 30 fm. level, east of ditto, the lode is 2 ft. wide, with stones of ore.—Middle Lode: In the 40 fm. level, east of ditto, the lode is 18 in. wide, worth 3*l.* per fm.; in the same level, west of ditto, the lode is 15 in. wide, with stones of ore. In Burgess's shaft, from surface, we are sinking in the country for the middle lode.

WARLEGGAN CONSOLS.—I have no alteration to report this week; we have commenced driving north of the shaft to intersect the lode we went through in sinking. We are also driving through a bar of ground south, to enable us to work our slopes to advantage.

WELLINGTON.—There is no change to notice in either of our 50 fathom levels, east or west of the engine-shaft, since my last report. The ground in the cross-

WHEAL SETON.—In the 100 fathom level west, on the south part of the main lode, a lode has been discovered that will produce 6 tons of ore per fm. There also is an improvement in the 24, east of Harvey's shaft; the lode is 2 ft. wide, contains an average of 6 tons of ore per fm. and is 4 inches wide.

At the last general meeting your directors proposed the issue of additional shares, not exceeding 1000, nor less than 500, as sufficient for the full development of the mine. According to the resolution, 500 shares, at 3l. each, were issued, and 1500l. arising therefrom added to the capital of the association. Your directors are happy in being enabled to state, that such sum was sufficient to effect the complete exploration of the mine, and

The CHAIRMAN said a great portion of their profits was absorbed in the heavy charge of sending ore down to the coast; he thought that no sound objection could be raised to the change indicated in the report, by which he reckoned

5000, would be saved under one head alone in three months. If 20000 a year could be saved by smelting their own ore, instead of sending them over to this country, he thought they ought not to hesitate in sanctioning the course proposed to be taken. If this were objected to, it would not afford the directors encouragement to continue in their present position with respect to the advances which had occasionally to be made, and for which the company being an unregistered association, they were, in fact, responsible. Part of the intended capital would be expended in smelting and stock purposes, instead of sending the ore over as at present; and from the calculations made by Mr. Thomas, whose estimates they had always been able to depend upon, as to the expenses of smelting, the first outlay would amount only to 5000, to which might be added 2000, making in all 7000; while the remainder would be applied to the accumulating of stock during the winter, and not to outlay, so that of the call to be made not more than one-tenth would be applied to the mine, the remaining nine-tenths being surplus capital, and represented by ore on hand. The remainder of the money would be wanted chiefly in the winter season, to stock ore, &c., which would be afterwards sent over in the summer months. He had full reason to believe that at the price the shares would be issued, they would be freely taken.—The resolution was then moved by Mr. Wilson, a director, seconded by Mr. Lloyd, and unanimously adopted.

Two other resolutions were then moved and carried; the first empowering the directors to forfeit all shares on which the instalments shall not be paid within 15 days after the periods mentioned; and the latter, stating that applications for the new shares were to be made to the secretary in writing before the 20th of December, which were subsequently to be allotted by the directors, and if any shares remained after that date, their disposal would be left to the discretion of the directors.

In consequence of the resignation of Mr. Quick, the CHAIRMAN said it would be necessary to choose another auditor.—No gentleman being named for that office by any shareholder present, the CHAIRMAN said he would, with Mr. English's permission, propose that gentleman as auditor, if he thought the small sum given for the discharge of that duty a sufficient compensation for his time and trouble.—Mr. English said he should be very happy to perform the duties of auditor without any remuneration, if he could in any way promote their interests.—The CHAIRMAN thought that the duties of auditing, when properly performed by a rigid inspection of vouchers, and not merely by adding up the figures, were fairly entitled to remuneration.—In which the meeting fully concurred, and it was agreed that 50 s. should be presented to each auditor, for the time and trouble devoted to the accounts of the company.

Thanks were then unanimously voted to Messrs. Thomas and Curry, the managing officers at Llaner, and afterwards to the chairman, for his conduct in the chair; in acknowledgment of which the CHAIRMAN said, he would at all times do all in his power to advance the interests of the association.

MILL POOL MINING COMPANY.

The engine being ready to work, a meeting of adventurers was held at the mine, on Tuesday, the 25th inst., for the purpose of auditing the accounts, and witness the first operations of the machinery, which gave perfect satisfaction. Several large stones of tin were broken from the bottom of the adit before the party left the mine, confirming, as far as present appearances can do, those good opinions which have been entertained of the adventure. The Mill Pool standard lode is also to be forthwith worked, by drawing the water from that part of the mine by flat-roads from the present engine; an adit is also to be driven to unwater the south lodes, where the last discovery of tin was made, and other matters of procedure were determined on with great spirit.

The accounts showed—Mine cost and merchants' bills from June to Sept., inclusive, 5577 19s. 2d.—By call of 11 per share, 2560 s.; arrears, 50 s.; tinstuff, 150 10s. 3d.—balance against adventurers, 2812 8s. 11d.—The mine is to be divided into 1024 shares, on which a call of 10s. each was made.

TRETHEY MINING COMPANY.

At the two-monthly meeting of adventurers, held at the Half-Moon Hotel, Exeter, on Monday, the 25th inst., the accounts were presented, showing a balance in hand of 2827 18s. 6d., and outstanding liabilities, 5000 s.; when a call of 10s. per share was made. A map of the workings is to be prepared, and all future workings be added thereto monthly; the copy to be kept at the count-house, also that the weekly communications be laid before the committee. Capt. Seymour was instructed to set a pitch on tribute, in the 30 ft. level, at 12s. in 100. The committee of management were re-elected for the ensuing two months, and the thanks of the meeting given to Mr. Vatcher, for his unremitting attention to the interests of the mine.

The following report, from Capt. John Seymour, was read to the meeting:—
Nov. 23.—In meeting you on the present occasion, I have much pleasure in acquainting you that your prospects of success are daily improving. The two lodes that I called your attention to in my last as having appeared in the shaft, have now formed a junction, and it is now full 7 feet wide. I imagine I have no occasion to go into details as to the appearance and quality of this lode, as I am perfectly satisfied that the portions of the lode you have before you will be considered ample testimony; but you will be pleased to bear in mind that the greater and richest part of the copper (a black oxide) is wasted in breaking, there being such a great quantity of water issuing from the lode. Most probably, it will be in the recollection of some parties present, that in my first report on this mine, and which appeared in the *Mining Journal*, I strongly recommended that the shaft should be sunk to the point which we have now reached, and in that case I felt assured that the then shareholders would meet with something very advantageous. Fortunately my suggestion was adopted by them, and the present results fully corroborate my prediction. I can perceive two good shoots of ore in this mine, one to the east of the shaft, about 6 fms, and another to the west of it, this is about 10 fms. west of the shaft, and appears to be dipping east; I submit some of the specimens which were taken from the top of this shoot; the lode in this place is full 6 feet wide, which accounts for the large and strong gossan in the shaft; and I am perfectly satisfied that under this gossan a very extensive deposit of copper ore will be met with; and by the time we reach the 50 ft. level from surface, one of the most productive mines in the district will be developed. Our shaft ought to be prosecuted with the utmost vigour; and it is highly essential that 12 men be employed, as eight hours in a core is too long in this wet shaft, and the men cannot do a fair proportion of labour, compared to six hours' working. I was underground on Friday last, and was through within 10 minutes after my descending.

WHEEL HARRIET MINING COMPANY.

A meeting of London shareholders was held at the office, Threadneedle-street, on Tuesday last, to meet the purser, when a detailed account was given of the present position and prospects of the set, and a deputation appointed to visit the mine at the next general meeting of shareholders, to be held on the 10th of December next, to confer with the manager and resident shareholders respecting the immediate erection of machinery for draining and effectively working the mine.—The PURSER stated the works were progressing highly satisfactorily; that the 10 ft. level on the main lode, and the adit level on the north lode, were looking well; and that the prospects generally were most encouraging. The balance in hand is upwards of 20000 s., and the meeting felt confident that at no very distant day the shareholders would be in possession of a good and profitable mine, under the able management of Capt. Nicholas Treddinick.

WHEEL MAY MINING COMPANY.

A meeting of adventurers was held at the Hall of Commerce, Threadneedle-street, yesterday. Mr. REYNOLDS in the chair.

The notice convening the meeting having been read, Mr. H. PERK (the secretary) read the following report of the managing committee:—

In meeting you, for the first time since the important resolutions were passed, which have placed the Wheel May Mining Company strictly within the ancient and recognised principles of the "cost-book," your committee refer with satisfaction to the progress made in following out the plan by which the company has been re-constituted. Your committee do not feel themselves called upon at this period to argue the point whether this change has been beneficial or otherwise. They leave this expression of an opinion to the assembled body of adventurers; but it is with great pleasure they refer to the large interest already represented by signatures in the new cost-book, which was opened at the last general meeting on the 25th of September. In accordance with resolutions then passed, your committee have endeavoured to impress on all holders of certificates originally issued, the necessity of conforming to the rules adopted, in order to constitute themselves shareholders, according to the division of the mine into 1024 parts—23 original certificates representing one of the consolidated number of the new cost-book. The call of 5s. per share on 1024 shares, which was made payable on or before the 28th inst., has not yielded a sum adequate to the expenses of the mine, as the costs and liabilities extended over a period of four months—July, August, September, and October. The respective amounts of these months' costs are given in a schedule, annexed herewith. The liabilities of the mine have been liquidated, from time to time, as the funds at disposal would admit of; and the cash account, which has been kept at the Royal British Bank, will be laid before you. The operations on the mine have chiefly been confined to the workings in the adit level, and in procuring stone for the foundations of an engine and boiler—for the erection of which your committee have entered into a contract with Messrs. Ash, Smith, and Co., of Upper Thames-street, London, on favourable terms of payment. The engine it will be at work in some weeks from this date, and the mine has at once more actively developed. With a view of placing your committee in possession of sufficient funds, they recommend that a call of 5s. per share be made at this meeting; and that such resolutions as may be considered expedient be adopted, for the purpose of vesting in your committee the necessary powers for carrying out the resolutions passed at the last meeting.

A statement of accounts was next submitted, showing—Balance in hand, Sept. 27, 441 17s.; amount of call on 1024 shares, 2560 s.—3000 17s.—By cash received on calls, 1075 5s.; arrears due, 148 15s.—Mine cost for July, August, Sept., and Oct., 2777 16s. 4d., of which the amount paid was 1471 7s. 7d.; leaving liabilities to Oct. 31, 1307 8s. 6d.—Under the head of assets were Arrears of calls, 148 15s.; cash in hand of bankers, 41 14s. 4d.—1831 9s. 6d.; leaving, when the liabilities are discharged, a balance in favour of the mine of 237 8s. 8d.

It was moved that the report be received and adopted, which being agreed to, a somewhat desultory discussion took place on the affairs of the mine, from which it appeared that the proposed call of 5s. per share was deemed necessary for the pending emergencies, and that when paid there would be funds in hand to the amount of about 2000 s. for future operations. It was intended that the new engine, supplied by Messrs. Ash and Co., should be paid for by instalments of 500 s. a month; and when the engine was at work, the expenses would be about 600 s. per month. The propriety of taking measures as recommended by the shareholders was also brought under notice, and subsequently made the subject of a resolution, in which it was resolved, in pursuance of the resolutions, it made no difference whether the holders were registered or merely subscribers; and the committee had the power to forfeit their shares, by making proper application to the

court—they being still liable to their share of the expenses up to the time of forfeiture.—The first resolution, moved by Mr. FULLER, and seconded by Mr. WILKINSON, was as follows:—"That in accordance with the resolution passed at the meeting held on the 27th Sept. last, it is requested that the holders of the four remaining shares now held by certificates of 1-5000th do, within 10 days from this date, adopt the resolution, by registering their shares according to the rules entered in the cost-book, otherwise this meeting do hereby authorise the committee to adopt such steps for forfeiture as are contained in the resolution referred to," which was unanimously carried.

The subsequent resolutions were also proposed and carried:—"That this meeting feel it incumbent on them to adopt measures for the immediate payment of arrears of calls now due, and that the committee be empowered and fully authorised to adopt such a course to compel the payment of the same as they may deem advisable."—"That the report of the committee, which has been placed before the meeting, having been received and adopted, it is necessary that the committee should be accordingly placed in the funds required. It is, therefore, proposed that a call of 5s. per share on 1024 shares be now declared, and made payable at the Royal British Bank, Tokenhouse-yard, within 21 days from this date."

A motion having been made to a notice which appeared in the *Mining Journal* of last week, respecting the propriety of having a regular office for transacting the business of the company, Mr. FULLER expressed his willingness to give the use of his office, if any benefit could result to the company. It was, however, explained by the SECRETARY that there is at present no necessity for taking a step as regards an office, as the room at the Hall of Commerce taken for their meetings had been subscribed for up to 12 months. The company, nevertheless, were under great obligation to their chairman (Mr. Reynolds), for the use of his office in Broad-street, which, until they were in a paying condition, he was still ready to afford.

It was then proposed that the above resolutions be printed, and a copy forwarded to each shareholder, which was agreed to.—A brief conversation followed, in which very favourable opinions of the prospects of the company were expressed, and it was stated that there was already a long list of shareholders interested in the mine, either by signature or transfer, and 900 shares out of the entire number could be accounted for.—A vote of thanks to the chairman was moved by Mr. Ash, which, being acknowledged by him, the meeting separated.

WHEEL VENTON MINING COMPANY.

A two-monthly meeting of shareholders was held at the office, George-yard, Lombard-street, on Monday, the 25th inst., when the accounts presented showed a balance in hand of 2117 18s. 11d., and a balance of liabilities over assets of 6667 17s. 4d. It was resolved that the company be in future divided into 1024 shares, instead of 512, and a call of 10 s. per share was made, payable forthwith.

The following report, from the captain, was read to the meeting:—
Since the last general meeting we have been principally occupied in completing the surface works which were then in progress. They are now, with the exception of some trifles, completed. The steam-engine is working and answers well. The shaft is sunk about 26 fms, and would have been much more, but we were obliged, through the great increase of water, to suspend our sinking operations for the space of five weeks, till our engine went to work. We have now cut some excellent branches of lead in the bottom of the shaft, specimens of which I have sent you. We at first thought it to be the lode; but, on proceeding further, we discovered they were nothing but branches, emanating from, or falling into, the lode. Since this discovery (knowing the general meeting was so close at hand) we have prosecuted our works with the utmost possible vigour, hoping to be able to state something definite on the subject in time for the meeting; but up to this time, I cannot. I much wish the meeting had been a week later, but I can venture to state this, that I think we have the capital of the lode in the bottom of the shaft; another week will prove this. In conclusion, I beg to state that, taking all matters connected with the mine into account, such as the fine stratum of soft blue lillas, interspersed with patches of elvan, veins of manganite, branches of barites, and, lastly, of lead, it is almost impossible that a mine can look in a more promising state.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

At TREGAROCK MINE the shaft is being sunk by nine men, at 4s. 4s. per fathom, and is now down 33 fathoms. There is every prospect of having a good mine here.

We understand that a highly respectable company is forming for the Breage Consols Mine, consisting of gentlemen in the neighbourhood, together with London, Liverpool, and Manchester capitalists. The set is extensive, being more than a mile in length on the course of the lodes, of which there are eight in number, running east and west nearly, and intersected by four of the Great Wheel Vor north and south lodes; also two champion cross or canter lodes, which pass through both Wheel Vor and Breage Consols lodes, on the junction of killas and granite, thus rendering the ground of a character congenial for great mineral deposits.

MINING OPERATIONS IN NORTH WALES.—In connection with the discoveries of copper ores in great masses, reported in the *Journal* of 16th inst. as having been made at the Crafnant Copper Mine, near Harlech, now working by a few gentlemen, who have divided the mine into 90 shares, rated at present at 2500 each—we learn, from authority, that the same company have taken the celebrated mines, called the Prince of Wales Silver-lead Mines, situated near Dolgelly, in Merionethshire, from which they have already raised, and have now on bank, nearly 200 tons of valuable ore, which, by assay, produces 36 oz. of silver per ton. It thus seems that North Wales is about to become a formidable rival of its sister division (South Wales), so proverbially rich in mineral wealth, and so fortunate to the mining adventurers, who have worked the mines in that division of the principality, particularly in Cardiganshire. The Prince of Wales Mine, we understand, to be placed on a similar plan of working, and under a like organisation of management, with that of the Crafnant, and its capital to consist of a like number of shares.

MINING IN CARDIGANSHIRE.—In the *Journal* of the 16th inst., the shares in Allt-y-Crib were quoted at 2½—3. Such a sudden declension in the price must have alarmed those who are holders, but it will be satisfactory to them to be informed that the reduced quotation was not authorised by the managers of the mine, nor justifiable by any fact, the last transaction connected therewith, being a sale at more than double that sum. The cause, Owen R. Von Uster, tried on the 11th inst., in the Guildhall, may have partly shown that a misunderstanding had arisen between one of the lessees, and the others, his partners, the result of which was that Mr. Von Uster, on the 20th inst., sold out the whole of his interest, and has now no connection whatever with the concern. The purchaser is a gentleman well acquainted with, and a very large shareholder in, the Cardiganshire mines, and this transaction, requiring as it did the immediate payment of a very heavy sum, is a pretty good proof that these mines, notwithstanding occasional mishaps, are beginning to be properly appreciated by the public. Indeed, the rapid improvement which daily takes place in the mineral character of the county generally is most remarkable. A few years ago hardly anybody could be induced to become an adventurer in it: now almost all the mines are under lease to somebody or other, and are being brought into a course of working as fast as possible. Observe the prices of shares in the following:—Cefn Bruno, 60 s. paid, price 400 s.; Gwaith-du (wrongly called East Daren), 141 s. paid, price 522 s.; Cwm-y-wyl, paid 600 s., price 900 s.; Daren, paid 25 s., price 70 s.; Goginan, paid 50 s., price 350 s.; Lisburne, paid 750 s., price 6000 s.; with many others in which the profits, though at present small, are equally real. Of these, Cefn Bruno and Gwaith-du, were generally considered worthless, and Daren, which was last year called a "defunct" mine, has this year shown unmistakeable signs of much vigour, and a long life left yet. Observe also how many have either commenced making profits, or are waiting only for the erection of machinery to enable them to do so; but, above all things, observe here the greater amount of profit, and rapidity of acquisition, in proportion to outlay and time, as compared to the greatest of the Cornish mines generally, and then it will be impossible not to allow that Cardiganshire contains a large mining field of value and promise equal, if not superior, to any in the United Kingdom.

MINING APPOINTMENTS DURING THE WEEK.

2. Forey Consols sampling.
3. South Basset account, on the mine.
4. Devon Consols and other mines sampling.
5. Ticking at Redruth, Tincroft, Seton, North Pool, and other mines.
6. Pay and setting at Carn Breos, East Pool, South Pool, and other mines.
7. Pay and setting at Par Consols, Devon Consols, Ferran St. George, Dolcoath, Stray Park, West Jewel.

PROFESSOR FARADAY ON ATMOSPHERIC MAGNETISM.

The Bakerian lecture was delivered by Prof. Faraday on Wednesday last, on the highly interesting subject of atmospheric magnetism. The lecture was a brief account of parts of the contents of papers already in the possession of the society. It was to the following purport:—Having shown three years ago that oxygen was highly magnetic, Prof. Faraday had of late, by means of a peculiar differential tension balance, ascertained that, as the oxygen was dense or rare, it gained or lost for a given volume proportionally of its magnetic power, and also by other experiments, that as its temperature was lowered or raised it also gained or lost in the degree of its magnetic force. Nitrogen, the other chief constituent of the atmosphere, underwent no changes of this kind; but the atmosphere, as a whole, was affected through the oxygen it contained. These changes were within the range of the daily variation of temperature; and the air thus heated and cooled affects the lines of magnetic force which pass through it in their course from the earth into space. As the sun rises and comes onward in relation to any given place, the atmosphere beneath is affected, so as to cause the lines of magnetic force to diverge within the heated mass, and as the sun passes away and air of lower temperature than the mean is produced, the lines of force tend to converge.

The lecturer was especially careful to impress on the minds of his hearers that it was not assumed that the hot or cold air acted at once upon the needle, but upon the great system of magnetic forces, which, emanating from the earth, pass as it were through the atmosphere into the regions of space, and because of their polarity, return to the earth again. When these are affected in any one part, needles everywhere upon the surface of the planet are also affected in proportion to their distance from the seat of action, following in their position the force of the curve which governs them.

Upon a first comparison of the alteration which should occur in the lines of force at any given place for a given hour, with the magnetic observations made at that place, the directions of the variations, both of the declination and inclination, are found to accord so well with the theoretical deductions, as to create a strong expectation that the assigned cause is the true physical cause of the annual and diurnal variations, and of many of the irregular variations that are made evident in the records of the magnetical observatories. The variations already compared with the theory are those of Toronto, Greenwich, St. Petersburg, Washington, Cape of Good Hope, St. Helena, Singapore, &c. A chief fact or two—such as the magnetic character of oxygen contained in bubbles of oxygen and of glass, and the effect of temperature in diminishing the magnetic force—were illustrated by experiments.

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning, Eleven o'clock.	
Bank Stock, 5 per Cent., 211	Belgian, 44 per Cent., 87½
3 per Cent. Reduced Ann., 94½	Dutch, 24 per Cent., 86½
3 per Cent. Consols Ann., 96	Brazilian, 5 per Cent., 87
31 per Cent. Ann., 97½	Chilian, 6 per Cent., 87
Long Annuities, 71	Mexican 5 per Cent., 25 Coup., 82
India Stock, 10½ per Cent., 271	Russian, 5 per Cent., 107½
3 per Cent. Con. for Acct. 11th Dec. 94½	Spanish, 5 per Cent., 17½
Excheq. Bills, 10000, 14d. 6s. 6d. pm.	Ditto 3 per Cent., 39

MINES.—Our share market is assuming every day a more satisfactory position—increased business and increased success in the working of mines. So long as capital, which may be considered as the moving power, continues abundant, there can be no doubt that a flourishing condition of this particular branch of our native industry is in prospect, which may be long before it reaches its culminating point. A stimulus is added to the production of ores also by the extremely healthy condition of the metal markets both at home and abroad, and thus by these combined causes every description of good mining shares, dividend or otherwise, are gradually (which is the best and soundest feature of the market) advancing in value.

In the Metal Market, copper is steady, and a moderate business doing; prices firm. British tin, common rather easier, while refined is largely inquired for. Lead continues firm, prices without change. Tin-plates in good demand.

The East Wheel Rose sale was 85 tons, at 147 14s. 6d.; 68 tons, at 147 11s. 6d.; and 37 tons, at 137 11s. per ton.

Two parcels of silver-lead ores, sold from the Callington Mines, on Wednesday, produced—38 tons, at 177 13s. 6d. per ton; and 6 tons, at 187 7s. per ton.

The Llwynmales Mine sold 40 tons of silver-lead ore, at 137 16s. 6d. The Cwm Erfin have sampled 31 tons of lead ore.

The Esgair Lee sold 25 tons of lead ore on Tuesday, at 117 3s. 6d. per ton; and the Tamar Mines 83 tons, at 137 7s. 6d. per ton.

The September and Oct. ores, from East Tamar, are estimated 67 tons. The Laxey (Isle of Man), Lead Mines, have sold 100 tons of ore, at 197 7s. 6d. per ton.

The Bat Holes report is very favourable—the sampling for November will be about 50 tons of silver-lead ore.

The Tincroft returns show an increase over those made for some time past. West Tolgus has improved; in sinking the shaft below the adit the lode is larger, yielding from 24 to 3 tons per fathom, of better quality ore.

The reports from Alfred Consols and Holmabush are very favourable. At West Wheel Virgin the produce of last month's workings, 10 cwt. 3 qrs. 8 lbs. of tin, have realised 277 14s. The lode in the shaft is improving in size and quality.

At the Trannack and Boscawen Mines, the amount of copper ore, 40 tons, at surface will, it is estimated, be more than sufficient to meet the present expenditure. The works are actively prosecuted, and give good promise of future benefit.

The report of Lamherose Wheel Maria confirms the favourable account given last week—the lode being stated to be "continuous, being from 6 to 7 ft. wide, and bears unmistakable evidence of a first-rate ore." The details also of other parts of the mine are satisfactory.

At the Tyn-y-Werglodd slate quarry, operations are about to be resumed on a large scale. The whole of the capital is subscribed, and the quality of the slate is stated to be fully equal to the Bangor.

A vessel has just arrived from Ostend, bringing the large quantity of 12,982 sheets of zinc, the produce of Belgium.

Copper ore, to the amount of 1400 tons, belonging to the Cobbe Mining Company, has arrived at Swansea.

The Rocky Bar Mining Company, whose operations are carried on near the middle fork of the American river, California, has declared a yearly dividend of 100 per cent., payable at the company's offices, New York.

The following dividends have been paid during the present month:—

Per Share.	Amount.	Per Share.	Amount.
Devon Great Consol.	27 16s. 0 d.	Wheel Trevelyan	10 10s. 0 d.
East Wheel Rose	20 25s. 0 d.	Wheel Reeth	10 12s. 0 d.
Wheel Buller	20 25s. 0 d.	Alfred Consols	4 10s. 0 d.
Lisburne	20 25s. 0 d.	Bedford United	4 10s. 0 d.
South Wh. Frances	15 12s. 0 d.	Wheel Lovel	2 10s. 0 d.
Wheel Mary Ann	3 13s. 0 d.	South Caradon	3 3s. 0 d.
North Pool	15 13s. 0 d.	Providence	3 3s. 0 d.
Trevissky	12 14s. 0 d.	Wellington	1 25s. 0 d.
St. John del Rey	12 14s. 0 d.		

At Lisburne Mines a dividend of 20 s. per share has been declared.

At the Trevissky meeting, a dividend of 12 s. per share was declared. The accounts showed—ores sold, 28467 6s. 5d.; mine cost for August and September, including merchants' bills, water charge, tribute of ore, &c., 13687 16s. 10d.—leaving profit, 14777 9s. 7d.; to which add balance of last account, 37 18s. 10d.—14815 8s. 5d.—Deduct dividend, 14400 s.—leaves balance in hand, 437 8s. 5d. Last week 425 tons of ore were sampled, and the same quantity is expected to be raised for November and Dec.

At the South Caradon meeting, on Tuesday, the accounts showed—By sales of copper ores, 39444 9s. 10d.; sundries, 1737 13s. 3d.—41182 3s. 1d.—Mine cost for July, 14337 0s. 2d.; August, 14777 9s. 7d.—showing profit of 12077 13s. 4d.; by call on 24th Sept., for liquidating damages awarded on the Seaton River question, 35844 s.—47917 13s. 4d.; by balance from end of June, 40117 14s. 6d.; dividend of 37 s. per share, now declared, 3847 s.—leaves to credit of next account, 3957 18s. 10d.—The prospects of the mine generally are cheering, and it is expected that an increased dividend will be paid at the next meeting.

At Wheel Lovel last account a dividend of 22 s. per share was declared.

At the Tywmanhayle and Nancekuke meeting, on Thursday, the accounts showed the balance of costs on the mines since commencement of operations amounted to 13,252 s., against which there are bills on hand for ores sold for 4318 s., reducing the amount to 8934 s., which added to 16,000 s., the purchase-money to the duchy of Cornwall, makes the total outlay 24,934 s. A call of 10 s. per share was made, to pay off last instalment of 4000 s. and interest to duchy, and to provide a floating capital. The report described the nature of the discoveries of ore during the past year, and the present state of the mines, which is favourable, though the levels are not so rich generally as they were. The ore discovered is estimated at 7000 tons.

The Wheel Venton accounts showed a balance in hand of 2117 18s. 11d., and a balance of liabilities over assets of 6667 17s. 4d.: to meet which a call of 10 s. per share was made. The shares in future are to be divided into 1024, and the call made was upon that number. The agent's report of the mine is most favourable.

The Mill Pool accounts showed balance against the mine 2812 8s. 11d. The number of shares were increased to 1024, on which a call of 10s. per share was made. The engine went to work most satisfactorily on Tuesday, when some large stones of tin were broken in presence of a party of the adventurers.

At the Trethvey meeting, the balance in hand was declared to be 2827 18s. 6d., and the liabilities of the mine, 5000 s.—upon which a call of 10s. was made. The report of the mine agent stated that the two lodes, mentioned in a previous report, had formed a junction, and were now 7 ft. wide, and much was anticipated from the future development of the mine. A map of the working is to be prepared for the inspection of shareholders.

At the Wheel Harriet meeting, the purser explained the progress and present state of the works, which he considered as very satisfactory. There was stated to be a balance in hand of 20000 s.; and a proposition is to be submitted at the next meeting for erecting machinery for draining and working the mine.

At the Wheel May meeting, resolutions were adopted for the prosecution of further operations at the mine, and also relative to unregistered shares, and the arrears of calls, a report of which is given elsewhere. The mine cost for the last four months amounted to 2777 16s. 4d.; and on account of liabilities and assets there was a balance in favour of adventurers of 237 8s. 8d. A call of 5s. per share was made for the purchase of a new engine, and other contingencies.

Transfers of shares in the following mines have taken place during the week:—Wheel Venton, South Tolgus, Alfred Consols, West Tolgus, Trevis, Black Craig, Bedford United, South Wheel Frances, Mary Ann, Trannack and Boscawen, West Alfred Consols, Gustavus, Tremayne, Wellington, St. Aubyn, Peter Tavy and Mary Tavy, Pentire Glaze, East Wheel Reeth, Wheel Arthur (Calstock), Mill Pool, Mineral Court, Wheel Langford, Wheel Emily, Trebell, Daren, Lamherose, Hawke's Point, Great Alfred Consols, Kirkeudbrightshire, West Providence, Tincroft.

In Foreign shares, business has been done in Cobbe, Copiapo, United Mexican, Real del Monte (unregistered). Many inquiries have also been made for Alten shares since the publication of the report last week. Copiapo shares are also in demand. United Mexican have fluctuated greatly, but an improvement has taken place towards the close of the week.

At the half-yearly meeting of the Llanerch Mining Association, the report read to the shareholders recommended the raising of further capital, with a view to the carrying out of smelting operations, and other purposes, at the mines, thus saving the expense of transmission and shipment, for which a large amount is now paid. The chairman, Mr. Field, strongly advised this course, by which he estimated a saving of 2000*l.* a year would be effected. He proposed that 4500 new shares should be issued, at 30*s.* per share, to be paid by instalments, by which a capital of 6750*l.* would be raised, applicable to the various purposes mentioned in the report. A resolution to this effect was proposed, which, after the explanations of the chairman, was unanimously carried. A report from Messrs. Thomas and Curry, managing agents at the mine, was also read, giving full details of the operations in progress, and the present state of the mines.

The National Brazilian Company have received letters from Cocas, under date of Sept. 12 and October 2. At Cocas Mine, the works have been continued through the layer between Huntley's and Hamilton's upper stopes, in which the indications are more favourable. There was reason, also, for expecting some good veins in the workings upwards to the shallow adit, judging from their proximity to the spot where large quantities of gold have been formerly extracted, and the general appearance of this portion of the lode was deemed such as to warrant a thorough examination. The produce reported from Cocas was extremely limited—being, from September 4 to October 2, only 4 marks 2 ozs. 4 dwt. grains.

Advices have been received by the Imperial Brazilian Mining Association, through the *Inconstant*, dated Bananal, Sept. 23, and Oct. 3. They report the opening of a communication between Gibson's and Gibbs's shafts, and the stoping of the backs is to be commenced as early as possible—from this operation much was anticipated. The vein in the back of the 7 m. level had improved, and was yielding good produce. This is separate from any former workings, and is deemed altogether a new vein. At the Gongo Mine active workings were in progress, and a new stamping mill was about to be set up. There had been some falling off in the produce of the stamps, owing, it is stated, to the uncertain productiveness of the jacutinga, but good results were expected when the plans in operation are fully carried out. The gold report gives the produce from Gongo from September 12 to October 3, at 7 lbs. 7 ozs. 9 dwt., from Bananal, for the same period, 14 lbs. 3 ozs. 14 dwt., the latter being a marked improvement on the last report.

The latest advices of the St. John del Rey Company are dated Morro Velho, Sept. 18 and 28. They mention the transmission of eight boxes, containing 407*½* lbs. of gold, to be forwarded by the agent at Rio, and which have since arrived. It appears that the produce of 10 days' stamping working was 7003 ozs., from 405 cubic feet of sand. The supply of stone was abundant, but the quality had somewhat deteriorated, and the produce is expected to suffer in proportion. A letter of the date last named gives, as the result of 20 days' stamping, 14,320 ozs., from 796 cubic feet of sand, being nearly 18 ozs. per cubic foot. The quality of the stone was reckoned inferior to that of the preceding month. At a meeting of directors, on Friday, a dividend of 30*s.* was declared, which will amount to 16,500*l.*, to be divided among the shareholders.

HULL, Thursday.—Messrs. T. W. Flint and Co. state that, for mining shares, there has been a firm good market throughout the week:—Tremayne 1*½*, Wellington 1*½*, Trevelyan 1*½* and 20. Many of the other lighter stocks are also in request, especially Glanville, South Tamar, &c. West Tamar has gone back a trifle, but with buyers at the decline. St. Aubyn and Bedford United in fair request, at late prices. Venton, Lewis, and Trannock would find buyers at fair rates. Railway shares, after receding to some extent, are again firm; but the demand is now chiefly upon a better description of stocks.

We have every reason to believe that the attention of the French Legislative Assembly will very shortly be directed to the long-contemplated modification of their import duties on British coal and iron produce. A deputation of influential northern coalowners has been favourably received by Louis Napoleon, who stated that the subject had been long under the consideration of the Government, and that arrangements were making to carry out the desire of the memorialists.

LATEST CURRENT PRICES OF METALS.

LONDON, NOVEMBER 29, 1850.

ENGLISH IRON, &c.	per ton	ENGLISH LEAD, &c.	per ton
Bar, bolt, &c., London	25 2 6-7 6	Sheet	18 0 10
Nail rods	6 6-6 10	Pipe	18 0 10
Sheets (single)	7 12 6-3 10	Red lead	19 0 0
Bars, at Cardiff & Newport	4 15 0	White ditto	25 0 0
Refined metal, Wales	3 0 0-3 15	Patent shot	20 10 0
Do. anthracite	3 10 0	FOREIGN LEAD, &c.	
Pigs in Wales	3 0 0-3 6	Spanish, in bond	16 0 17 0
Do. do. forge	2 2 0-2 4 6	Block	4 0 0
Do. No. 1, Clyde, not cast	3 6-2 4 6	Bar	4 0 0
Blewitt's Patent Refined Iron	3 10 0	Refined	4 6 0
for bars, rails, &c., free on board at Newport	3 10 0	FOREIGN TIE	
Do. do. for tin-plates, boiler plates, &c., ditto	4 10 0	Banca, H. C.	3 10 0
Stirling's Patent in Glasgow	2 15 0	Ditto, for Export only	3 10 0
Toughened Pig in Wales	3 10-3 15	Strails	3 18 0
Southdownshire Bar, at the works	3 0-2 10	TIN-PLATE, &c.	
Rails	4 12 6-5 0	IC Coke	7 0-7 6
Chairs (Clyde)	4 0 0	IC Charcoal	1 12 6-1 13
		IX ditto	1 18 6
		SPEKTER, &c.	
		Plates, warehouse	per ton 16 10 16 12 6
		Ditto, to arrive	per ton 16 0 16 7 6
		ENGLISH COPPER, &c.	
		Sheet, sheathing, & bolts, &c.	per lb. 0 2 0 9
		Tough cake	per ton 54 0 0
		English sheet	per ton 20 0-21 0
		QUICKSILVER	per lb. 3 <i>s.</i> 3 <i>d.</i>

Terms.—a, 6 months, or 2*½* per cent. dis.; b, ditto; c, ditto; d, 6 months, or 3 per cent. dis.; e, 6 months, or 2*½* per cent. dis.; f, ditto; g, ditto; h, ditto; i, ditto; j, ditto; k, ditto; l, ditto; m, ditto; n, ditto; o, ditto; p, ditto; q, ditto; r, ditto; s, ditto; t, ditto; u, ditto; v, ditto; w, ditto; x, ditto; y, ditto; z, ditto.

The WELSH IRON market has been more lively this week, and considerable enquiry continues to exist for speculation, with whom the article is getting more in demand. Nothing is to be had under 4*l.* 12*s.* 6*d.*, free on board in Wales, and the price may now be expected to improve from the above fact, as well as the large contracts which have been taken this week for rails, orders to the extent of 60,000 tons of these latter have been received at very remunerative rates—thus, the hopes which have been entertained of the improvement of this long depressed metal, now bids fair to be fully realised.

Scarceness of prices remain the same; makers, however, are amply supplied with orders at present rates.

SCOTCH IRON.—Since the resolution of the trade to abolish "scrip," the value of iron actually in store has advanced full 1*s.* per ton, while "scrip" remains at last week's quotation. A good deal has been done this week, and had not the affairs on the continent looked so gloomy, we should not doubt have seen a considerable rise on the present value of mixed No. 1, free on board at Glasgow, in cash, against warrant 4*l.*, and scrip 4*l.* 12*s.*

SWEDISH IRON is held firmly at 11*l.* 15*s.*, with buyers at 11*l.* 10*s.*

BRASS has been with moderate enquiry for home consumption.

SPRINGS has been with moderate enquiry for home consumption. Altogether the purchases for spring delivery during this month, have been about 1000 tons at 16*l.* 10*s.* to 16*l.* 7*s.* 6*d.*. The stock here is held in firm hands at 16*l.* 10*s.* to 16*l.* 12*s.* 6*d.*

COPPER is very firm.

BRITISH TIN is rather easier for the common description, while refined continues largely enquired for, and is very firm. E. I. in limited demand at the quotations.

LEAD has sustained its upward movement, and from present appearances is likely to advance very considerably beyond present rates. Spanish is in demand at 16*l.* 10*s.* per ton, while some holders keep out of the market, expecting better prices.

TIN PLATE continues in very good demand.

GLASGOW, Nov. 27.—Since my last monthly report, until very lately, our pig-iron market has manifested little activity, buyers contenting themselves with supplying their immediate wants; from 4*l.* 12*s.* 6*d.* to 4*l.* 15*s.* 6*d.* per ton having been the ruling prices. More of this dullness was, however, attributable to the generally awakened feelings of insecurity in the mode of transferring pig-iron, by means of scrip, or makers' obligations, than from any real want of demand. Our local consumption at no previous period has been so great as during the past months of this year, or at the present moment—all our foundries being fully, and our bar-iron makers fairly, employed; and the shipments, if not quite so extensive, at least very nearly as much, as during last year. Preliminary meetings of the trade, in Glasgow, Liverpool, Manchester, and London, having been held on the subject of abolishing "scrip," a general meeting was convened here, on the 22nd inst., which was attended by delegates from these cities, and numerous, by makers, merchants, and others interested. The resolutions then unanimously passed, were so decided on the point, and the determination to receive and deliver store warrants only as legitimate transfers of iron so general, as to restore the confidence of buyers; and the consequence has been, that the market has rallied considerably, and advanced with increasing inquiry to 4*l.* 15*s.* 6*d.* for iron in store, and transferable by storekeepers' warrants. It is also evident, that the quotations from London, Liverpool, &c., are very much raised, and show that the same feelings actuate the large dealers in these cities. It is to be hoped that a healthier state of things being now established, prices will advance to a rate which will prove more remunerative than hitherto to all parties. Stocks we do not consider heavier now than at the corresponding period of last year. Our market comes off firm to day—Common Bruns, sellers 4*l.* 15*s.* 6*d.*, buyers 4*l.* 14*s.* 6*d.*, free on board, cash—Guthrie's No. 1, 4*l.* 15*s.* 6*d.*, free on board. Bars, 5*l.* 7*s.* 6*d.* to 5*l.* 10*s.*; hoops, 7*l.* 10*s.*; plates and sheets, 7*l.* 10*s.* to 7*l.* 12*s.* 6*d.*; nail rods, 6*l.* 2*s.* 6*d.* to 6*l.* 5*s.* 6*d.* per cent. for cash, free on board.

NEW YORK, Nov. 16.—The iron market is very firm, and in Scotch pig, as the sup-

plies are small, improved prices have been realised. The sales consist of 600 or 700 tons of Scotch pig, part to arrive, at 51*l.* 5*s.* 6*d.* to 51*l.* 7*s.* 6*d.*; cash; 520 tons, to 521*l.* 5*s.* 6*d.*, six months; including 350 tons of Guthrie's at the lower, and 100 tons at the latter rate, both from yard; 150 tons of English bars, 5*l.* 6*s.* 6*d.*, from yard; and 100 tons of Swedish steel-iron, 5*l.* 10*s.* 6*d.*, from ship.

THE IRON TRADE.—The good effect of the movement against the "scrip" system, we are glad to perceive, has been already felt, and the latest accounts report a decided impulse given to the iron trade, as evinced in advanced quotations. The latter is of less immediate importance than the feeling of confidence induced by the belief that the days of the "scrip" system are numbered. It is not too much to hope that the effect of this return to a sounder state of things will be, that the depression under which the market has long laboured will soon give way to brighter prospects, and more remunerative results.

LEAD ORES.

TICKETINGS FOR ABOUT 100 TONS LAKY LEAD ORE.

Douglas Isle of Man, November 23.

Bidders.	Tons.	Price per Ton.	Purchasers.
Walker, Parker, and Co.—Dee Bank	221	11 0 0	Newton, Keates, & Co.
Mather and Co.—Bagillt	32	11 0 0	Walker, Parker, & Co.
Newton, Keates, and Co.—Bagillt	19	10 6 0	J. P. Eytton.
J. P. Eytton—Llanerchymor	18	10 6 0	Newton, Keates, & Co.
J. H. Meredith (trustee of the late J. F. Freedy)—Fowey Consols	18	10 6 0	Walker, Parker, & Co.
Combarthar Smelting Company—Barnstaple	17	10 6 0	Ditto.
Tamar Smelting Company—Barnstaple	16	10 6 0	J. P. Eytton.
T. Sumers—Bristol	18	10 6 0	Newton, Keates, & Co.
S. M. Williams, Nevill, and Co.—Llanelli	18	10 6 0	J. P. Eytton.
Pontfex and Wood—Newcastle	17	13 0 0	Walker, Parker, & Co.
Locke, Blackett, and Co.—Newcastle	18	11 0 0	

Ticketings at Holywell, Nov. 28.

Mines.	Tons.	Price per Ton.	Purchasers.
Pan-y-mwyn	221	11 0 0	Newton, Keates, & Co.
Ditto	32	11 0 0	Walker, Parker, & Co.
Pen-y-henblas	29	11 0 0	J. P. Eytton.
Ditto	29	11 0 0	Newton, Keates, & Co.
Westminster	50	11 0 0	Walker, Parker, & Co.
Ditto	45	11 0 0	Ditto.
Jamaica	30	11 0 0	J. P. Eytton.
Belgraves	20	11 0 0	Newton, Keates, & Co.
Messopah	75	11 0 0	Ditto.
Milner	28	12 0 0	J. P. Eytton.
Parry's Mine	3	10 6 0	Newton, Keates, & Co.
Halkin Hall	12	11 3 6	J. P. Eytton.
German Ore	31	6 0 0	Walker, Parker, & Co.

Machynlleth	Tons.	Price per Ton.	Purchasers.
East Wheel Rose	85	14 14 0	R. Michell and Sons.
Ditto	68	14 11 6	T. Somers.
Ditto	37	13 11 0	R. Michell and Sons.

Eagair Llee	Tons.	Price per Ton.	Purchasers.
Sold at Aberystwyth	25	11 3 6	T. Somers.

Tamar Mines	Tons.	Price per Ton.	Purchasers.
Sold in London	83	18 7 6	Locke, Blackett, & Co.
Callington	38	17 13 6	Sims, Williams, and Co.
Ditto	6	18 7 0	Ditto.

COPPER ORES.

Sampled Nov. 13, and sold at the Royal Hotel, Truro, Nov. 28.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Consolidated	88	24 10 0	Trevelick	57	22 18 6
ditto	83	24 10 0	ditto	50	22 18 6
ditto	82	24 10 0	ditto	49	22 18 6
ditto	76	24 10 0	Par Consols	79	22 18 6
ditto	74	24 10 0	ditto	74	22 18 6
ditto	70	24 10 0	ditto	56	22 18 6
ditto	64	24 10 0	ditto	48	22 18 6
ditto	63	24 10 0	ditto	38	22 18 6
ditto	59	24 10 0	South Consols	88	24 10 0
ditto	44	24 10 0	ditto	82	24 10 0
ditto	2	24 10 0	ditto	59	24 10 0
ditto	1	24 10 0	ditto	44	24 10 0

United Mines.	Tons.	Price.	South Tamar	Tons.	Price.
ditto	109	24 10 0	ditto	80	24 10 0
ditto	107	24 10 0	ditto	78	24 10 0
ditto	95	24 10 0	ditto	66	24 10 0
ditto	91	24 10 0	Trethellian	59	24 10 0
ditto	67	24 10 0	ditto	50	24 10 0
ditto	41	24 10 0	ditto	35	24 10 0
ditto	39	24 10 0	Trevelick Consols	45	24 10 0
ditto	25	24 10 0	ditto	60	24 10 0
ditto	23	24 10 0	ditto	56	24 10 0
ditto	21	24 10 0	Wheal Comfort	56	24 10 0
Perran St. George	82	24 10 0	ditto	32	24 10 0
ditto	61	24 10 0	ditto	31	24 10 0
ditto	53	24 10 0	Wheal Mary	43	24 10 0
ditto	51	24 10 0	ditto	32	24 10 0
ditto	47	24 10 0	Wheal Ellen	16	24 10 0
ditto	44	24 10 0	ditto	32	24 10 0
ditto	40	24 10 0	Wheal Henry	66	24 10 0
ditto	40	24 10 0	Carthow Consols	10	24 10 0
ditto	33	24 10 0	Wheal Clifford	10	24 10 0
Trevelick	51	24 10 0	Wheal Clifford	10	24 10 0
ditto	66	24 10 0	Wheal Penhale	7	24 10 0
ditto	62	24 10 0			

Consolidated	Tons.	Price.	Wheal Comfort	Tons.	Price.
United Mines	527	2302 17 6	Wheal Mary	107	352 18 6
Perran St. George	406	2652 9 0	Wheal Ellen	82	594 19 0
Trevelick	426	2736 15 6	Wheal Henry	66	422 8 0
Par Consols	295	1461 12 6	Carthow Consols	10	44 10 0
South Consols	253	1912 13 6	Respaun	9	45 15 6
South Tamar	224	1192 8 0	Wheal Clifford	10	17 2 0
Trethellian	132	408 14 6	Wheal Penhale	7	38 6 6
Trevelick Consols	125	702 12 6			

Average Standard	per ton	Average Produce	per ton
Average Price per ton	25 3 6	Average Price per ton	25 3 6
Quantity of Ore	3547 tons	Quantity of Fine Copper	270 tons 8 cwt.
Amount of Money	£18,350 7 6		
LAST SALE.—Average Standard	£96 3 0	Average Produce	9 <i>l.</i>
Standard of corresponding sale last month, 1850.	9 <i>l.</i> —Produce, 7.		

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Mines Royal.	Tons.	Amount.
Vivian and Sons	388	£2169 8 4
Freeman and Co.	851	3843 19 7
Greenfield and Sons	214	1331 5 10
Crown Company	709	3883 11 0
Sims, Williams, and Co.	467	367 18 6
Williams, Foster, and Co.	562	3358 8 0
Schneider and Co.	262	1041 10 3
Total tons	3547	£18,350 7 6

Copper ores for sale, on Thursday next, at Andrew's Hotel, Redruth.—Mines and Parcells.—Tremayne 722—North Pool 592—East Wheel 556—Wheal Bassett 690—Wheal Seta 543—Camborne Vean 358—East Pool 315—Fowey Consols 375—Conductor 373—South Wheel Frances 263—Dolcoath 190—North Roakear 104—Wheal Elizabeth 41.—Total quantity of ore to be sold, 4355 tons.

Copper ores for sale on Thursday week, at Andrew's Hotel, Redruth.—Mines and Parcells.—Cam Brea 827—Tywarthayle 601—Wheal Buller 352—Par Consols 302—Alfred Consols 260—Wellington Mines 230—Levant 209—West Wheel Treasury 154—Polberro Mine 139—West Wheel Seta 130—Wheal Tremayne 116—Betalake 41—West Fowey Consols 63—Wheal Agnes 58—St. Aubyn and Grylls 27—Trannack 27—Wheal Seta 22—Holland 21—Wheal Prosper 18—Wheal Bams 16—East Wheel Treasury 10—Wheal Trannack 5—Trenow Consols 4.—Total, 3674 tons.

At SWANSEA, for Sale Dec. 3.—Cuba 90, ditto 75, ditto 74, ditto 72, ditto 71, ditto 51, ditto 30—Copiapo 78, ditto 77, ditto 76, ditto 75, ditto 74, ditto 53—Cobre 101, ditto 86, ditto 53, ditto 15—Sydney 53—Waterloo Slag 20.—Total, 1224 tons (21 cwt.).

ACCIDENTS.

Miler Mines.—A deplorable accident occurred on Sunday last at these mines, which it will be recollected, were the scene of the miners' late riots. Mrs. Bray, wife of Capt. Bray, the agent, had placed a lump of coal on the fire, when her son, a boy of 12 years of age, perceived that it began to split, and directly afterwards an explosion took place, by which Mrs. Bray was thrown senseless on the floor, her clothes set on fire, and her face and arms most severely burnt. Her son and grandson were also dreadfully injured. The explosion quickly brought Capt. Bray to the spot, and he succeeded in extinguishing the flames. The unfortunate sufferers remain in a precarious state, but hopes are entertained that their lives will be preserved. It is believed that the accident originated from "a missed charge of gunpowder," inserted in the coal for the purpose of blasting, though it is difficult to conceive how it should have escaped explosion if used with that object. The accident appears to be of a wholly unprecedented character.

North Roakear.—James George had his legs so much fractured by the explosion of a hole, that it was thought amputation would be necessary, but by the skill of the medical man it is hoped the limb will be preserved.

Holmsham.—While James Francis was "tranning" with a wagon, his clothes got entangled in the carriage, and both fell over to a depth of 15 or 20 feet; he expired about three hours afterwards, and has left a wife and five children.

Dudley.—E. Bond was killed by a fall of coal at Dixon's Green Colliery.

Adrian.—H. Rios was killed while employed at the Leghams Colliery, near Holytown.

An explosion took place at Balld Davidson's Colliery, near Coatdyke, when two men were injured—it was fortunate that all the men, except those two, were absent, or the loss of life might have been fearful.

Brigholm.—D. Morris was killed by a fall of roof at the Corn Caves Iron-Works.

Bury.—J. Siddall was killed by a fall of roof at Messrs. Knowles and Hall's Bank Top Colliery, Radcliffe.

Wingate Grange Colliery.—R. Gray was killed while following his employ here.

PRICES OF MINING SHARES.

* As it is exceedingly difficult to obtain a correct knowledge of all the mines in our list in London, we trust the agents, and others interested, will assist us, by forwarding any corrections with which they may be acquainted—our object being to present as perfect a list as can be procured.

BRITISH

BRITISH MINES—Continued.

Share.	Company.	Paid.	Price.
256	St. Aubyn and Grylls (copper and tin), Brease, Corn.	24	31 22
94	St. Ives Consols (tin), St. Ives, Cornwall	1	30
929	St. Michael Consols (silver-lead), Cornwall	1	30
1000	Stray Park (copper), Camborne, Cornwall	104	22 23
9600	Tamar Consols (silver-lead), Beralston, Devon	4	41
687	Tavy Consols (copper), near Tavistock	8	34 34
4000	Tyn-y-Worgold (slate), near Carnarvon, North Wales	4	4 5
6900	Tincroft (copper and tin), near Pool, Cornwall	7	10
128	Trevelyan (copper), St. Ives, near Liskeard	74	8
240	Tolcarne (tin and copper), Camborne, Cornwall	1	16
1024	Transtown (tin and copper), Helston, Cornwall	14	14 16
1024	Trevelyan United Mines (tin and copper), Helston, Cornwall	14	14 16
3048	Trevelyan Consols (tin and copper), Llanfyllter, near Bodmin	14	14
512	Trevelyan United (lead), St. Teath, Cornwall	1	5
5000	Tregear Consols (antimony and silver-lead), St. Kew	1	2 24
256	Tregordian (silver-lead) Wadebridge, Cornwall	10	8
245	Trehan (silver-lead), Monheut	1	16
5000	Trelegh Consols (copper), Redruth	6	3 34
1024	Trelusbeck, Stithians, Cornwall	5	5
150	Trevelyan Consols (tin), St. Ives, Cornwall	74	30
2000	Tremas (copper), Helston, Cornwall	6	7 34
1500	Trevaun (lime quarries)	24	34 4
96	Trevaun (copper), Gwennap	10	130 140
120	Trevelyan (copper), Gwennap	10	30 35
120	Trevelyan (copper), Gwennap, near Redruth	130	340
512	Trevelyan (copper), St. Cleer, Cornwall	5	5
512	Treville (lead), Llewellyn	18	6 7
1000	Tyldwyd (lead), Cardiganshire	2	24
500	Tywarthelan (copper), Illogan and St. Agnes	60	37
200	United Mines (copper), Gwennap	300	140
5000	Warleggan Consols (copper), Cornwall	4	1 14
1024	Wellington Mines (copper and tin), Ferranabun, Corn.	54	16
1024	West Alfred Consols (copper), Illogan	2	8 10
126	West Buller (copper), Redruth, Cornwall	10	690
126	West Caradon (copper), Liskeard	30	55 98
512	West Fowey Consols (tin and copper), St. Blazey	40	60
2048	West Goginan (silver-lead), Cardiganshire	14	2 3
1024	West Par Consols (copper), St. Blazey, Cornwall	10	124
2560	West Polgoth (tin), St. Ewe and St. Ewean, Cornwall	5	40 494
512	West Providence (tin), St. Erth, Cornwall	10	16
200	West Seton (copper), Camborne, Cornwall	45	160
940	West Tolgu (copper), Illogan, Cornwall	124	124 134
120	West Trevelyan (copper), Gwennap, Cornwall	5	20
512	West Wheal Frances (copper), Illogan, Cornwall	54	164
1024	West Wheal Friendship (copper), Devon	3	3 4
3845	West Wheal Jewel (tin and copper), St. Day, Cornwall	12	24
2048	West Wheal Lead (lead), Cornwall	2	3
500	West Wheal Treasury (copper), Gwennap, Cornwall	7	14 15
1024	West Wheal Virgin (tin), Sancerre, Cornwall	2	2
5200	Wicklow (copper), Wicklow, Ireland	5	171 18
5000	Wicklow (copper and sulphur), Wicklow, Ireland	3	34 34
1070	Wheal Adams (lead), Christow, Exeter	134	16
1000	Wheal Agar (copper), Illogan, Cornwall	—	5 6
956	Wheal Albert (copper), Cornwall	10	33 38
126	Wheal Albert (tin), near Helston, Cornwall	80	90
300	Wheal Arthur (lead), near East Wheal Rose, Cornwall	17	50
2048	Wheal Arthur, Calstock	2	2
120	Wheal Bai (tin), St. Just, Cornwall	10	14
256	Wheal Benny (copper), Calstock, Cornwall	194	5
1024	Wheal Bray (copper), Altarnun, Cornwall	114	10
2324	Wheal Calstock (copper), Calstock, Cornwall	9	10
256	Wheal Capenstan (tin and copper), Gwennap, Cornwall	4	34
256	Wheal Courtenay (copper), Cornwall	20	24
1024	Wheal Crebor (copper), Tavistock, Devon	14	24 3
500	Wheal Daniel (copper), Chacewater	5	—
182	Wheal Elizabeth (copper), Redruth, Cornwall	9	524
1024	Wheal Emily (lead and antimony), near Plymouth	3	54 64
1024	Wheal Fortescue (copper), near Tavistock, Devon	42	14
764	Wheal Franco (copper), near Tavistock, Devon	134	65
100	Wheal Friendship (tin), St. Agnes, Cornwall	70	65
126	Wheal Friendship (copper), Devon	—	120
1000	Wheal Gasken (silver-lead), St. Hilary, Cornwall	3	3
4000	Wheal Golden (lead), Penzance, Cornwall	2	5 6
1000	Wheal Grouse (silver-lead, copper, &c.), near Wadebridge	5	5 6
1000	Wheal Harriet (copper), Camborne, Cornwall	1	4 4 5
1024	Wheal Hamlyn, near Okehampton, Devon	2	1 14
2048	Wheal Henry (copper), Kew, near Truro, Cornwall	8	12
216	Wheal Henry (copper), Kew, near Truro, Cornwall	8	12
256	Wheal Kingston (copper and silver-lead), Stoke Climsland	4	14
6000	Wheal Langford (copper and silver-lead), Callington	4	2 24
2000	Wheal Langmaid (lead), Devon	4	1 14
112	Wheal Margaret (tin), Ux Lelant, near Hayle	79	170 175
1024	Wheal May (silver-lead and copper), Botes-flaming	14	14
950	Wheal Mary (copper), Redruth, Cornwall	144	74
512	Wheal Mary Ann (lead), Monheut	5	574 59
1024	Wheal Neptune (copper), Perranuthnoe, Cornwall	4	4
1024	Wheal Oak (lead and copper), Cornwall	14	14
3000	Wheal Penhale (lead and copper), Cornwall	24	6
126	Wheal Plenty (copper), Redruth, Cornwall	10	34 39
126	Wheal Pollard (copper), St. Cleer, Cornwall	154	14
910	Wheal Prospect	4	7
5000	Wheal Providence, South Tawstock, Devon	4	2 3
126	Wheal Reith (tin), St. Ives, Cornwall	41	150
1024	Wheal Russell (copper), Tavistock	4	4 44
194	Wheal Seton (copper), Camborne, Cornwall	107	250
1056	Wheal Sarah (silver-lead), St. Kew, Cornwall	5	6
512	Wheal Sophia (silver-lead), Leston, Cornwall	64	7
512	Wheal Squire (copper and lead), St. Columb Minor	—	1
126	Wheal Spry (copper), St. Erth, Cornwall	—	5
1000	Wheal Susan, Breage and Crowan, Cornwall	4	24
512	Wheal Trefusis (copper), Gwennap, Cornwall	64	20
1100	Wheal Trescow (tin), Lanivet, near Bodmin, Cornwall	64	6
530	Wheal Trelawny (silver-lead), near Liskeard, Cornwall	34	47
256	Wheal Tremaine (copper), St. Ervan, Cornwall	11	24
1024	Wheal Tryphena (tin and copper), Gwennap, near Hayle	94	184 194
267	Wheal Tryphena (tin and copper), Camborne, Cornwall	40	694
126	Wheal Union (copper), Redruth, Cornwall	—	34 40
1024	Wheal Vane (silver-lead), Liskeard, Cornwall	24	7 7
1000	Wheal Vincent (tin), Altarnun, Cornwall	54	7
126	Wheal Violet (tin and copper), St. Stephens, St. Austell	2	2
126	Wheal Violet, Perranabuloe	3	5
184	Wheal Vyryan (copper and tin), Constantine, Cornwall	—	60

FOREIGN MINES.

5000	Alten Mining Company (copper), Norway	144	14 2
12000	Annotto Bay Mining Association, Jamaica	1	14
15000	Asturian Mining Company (coal, iron, &c.), Spain	15	14 2
20000	Australian (copper), South Australia	4	3 34
6000	Barossa Range (copper), South Australia	18	34
10000	Brazilian Imperial (gold), Brazil	20	54 54
12000	Cobre Copper Company (copper), Cuba	45	34 34
10000	Copage (copper), Chile	14	14
20000	General Mining Association (iron & coal), North Scotia	20	12 14
5000	Kinzigthal Mining Association (silver), Germany	2	2 2
5000	Linares (lead), Spain	3	2 24
5000	Ditto New	3	3
5051	Mexican Company (silver), Mexico	594	—
20000	Mexican and South American (silver), Mexico	8	1 14
5000	National Brazilian (gold), Brazil	30	34 34
104000	North British (silver), S. A. A. Forster Zee	1	1 14
7000	Royal Santiago (copper), Cuba	10	94
11000	St. John del Rey (gold), Brazil	15	15
43174	United Mexican (silver), Mexico	Av. 24	64
10000	Worthing (copper), Adelaide, South Australia	2	2

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Buddie's West Hartley 15—East Adair's Main 13 6—Hollywell 15 3—North Percy Hartley 14 3—Ord's Main 14—South Penarth 12 6—Tandem Moor 13 3—Towley 13 6—West Wylam 13 3—Wylam 14 9—Walla's End 14 3—Hutton 14 3—Hutton 14 3—Northumberland 14—Original Gibson 14—Riddell 14—Belmont 14 9—Braddell 15 6—Hutton 15 9—Hawthell 16—Jonasohn 14—Lambton 15 6—Richmond 15—Russell's Hutton 15 6—Hutton 15 9—Whitwell 14 3—Cadiside 14 9—Hough Hall 15—Kelloe 15—South Hartlepool 15—South Kelloe 15—Whitworth 15—Maclean's Tees 13 6—Tees 15 9—Vernon's Tees 14 6—Bircroft Gravel 19—Crossfield Merthyr and Gidley's Tees 19 6—Ships at market, 115; sold, 53.
WEDNESDAY.—East Adair's Main 12 6—Jonasohn's Hartley 13 6—North Percy Hartley 14 6—Tandem Moor 13 3—Tandem Moor Butes 13—West Wylam 13 3—Wylam 14 9—Walla's End Bewick and Co. 14 3—Gosforth 14 3—Hutton 14 3—Hutton 14 3—Lawson 14—Morrison 14 3—Original Gibson 14—Belmont 14 9—Braddell 15 6—Hutton 15 9—Hawthell 16—Lambton 15 6—Richmond 15—Russell's Hutton 15 6—Stewart's 15 9—Whitwell 14 3—Camp 14 9—Hough Hall 15—South Hartlepool 15—Whitworth 15—Adelaide Tees 13—Seymour Tees 14—Bircroft Gravel 19—Crossfield Merthyr and Gidley's Tees 19 6—Derwentwater Hartley 15—Hoyland 13 6—Ships at market, 63; sold, 50.
FRIDAY.—Buddie's West Hartley 14 6—Bogbie's Hartley 13 6—Carr's Hartley 14 6—Chester Main 13 9—Coxon's West Hartley 14—East Adair's Main 12 6—Hollywell 15 3—North Percy Hartley 14 3—Ord's Main 14—South Penarth 12 6—Tandem Moor 13 3—Towley 13 6—West Wylam 13 3—Wylam 14 9—Walla's End Bewick and Co. 14 3—Gosforth 14 3—Hutton 14 3—Hutton 14 3—Lawson 14—Morrison 14 3—Original Gibson 14—Belmont 14 9—Braddell 15 6—Hutton 15 9—Hawthell 16—Lambton 15 6—Richmond 15—Russell's Hutton 15 6—Stewart's 15 9—Whitwell 14 3—Camp 14 9—Hough Hall 15—South Hartlepool 15—Whitworth 15—Adelaide Tees 13—Seymour Tees 14—Bircroft Gravel 19—Crossfield Merthyr and Gidley's Tees 19 6—Derwentwater Hartley 15—Hoyland 13 6—Ships at market, 63; sold, 50.

THAMES TUNNEL COMPANY.

The number of passengers who passed through the Tunnel in the week ending Nov. 23 was 110, of passengers, 11,162. Amount of money, 463 3s. 6d.

NOTICES TO CORRESPONDENTS.

In the "MINING JOURNAL" of the 4th of JANUARY, 1851, will appear the commencement of a SERIES of PAPERS, to be continued weekly, detailing

The History of Mining,

ITS RISE AND PROGRESS.

together with NOTICES of the EARLY METHODS of WORKING; ANCIENT and MODERN INVENTIONS, with their subsequent IMPROVEMENTS; comprising also

A SKETCH of METALLURGICAL OPERATIONS,

from the EARLIEST PERIOD to the PRESENT TIME.

The Great Exhibition.

In the "MINING JOURNAL" will also be given a detailed description, with all necessary illustrations, of every object connected with MINING and ENGINEERING, which may be produced at the forthcoming Great Exhibition.

The Compendium of British Mining.

BY J. Y. WATSON, ESQ., F.G.S.

We have the pleasure to announce, that Mr. Watson has consented to revise and correct, to the present time, his interesting EPITOME of BRITISH MINES, for republication in our Journal, and that the first portion will appear on the 4th January next. In the "Compendium of British Mining," it will be remembered, the actual position of the different mines is accurately described, both as to capital and working.

At the end of each year, a copious index is published, which renders the volume an interesting and valuable record.

* * * We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

SOUTH AUSTRALIA.—We have much pleasure in acknowledging the receipt of an exceedingly interesting communication from our respected Adelaide correspondent—the first portion of which we give in this day's Journal; the conclusion will appear in our next. Mr. James Stride, the mining shareholder, wishes us to announce that he is in no way connected with the James Stride who has recently become notorious as an insolvent "betting office keeper."

"Justitia" (Hammersmith).—The electric clock was invented by Prof. Charles Wheatstone, and was first shown and described at a meeting of the Royal Society, in Nov., 1840. The first practical electric telegraph which was ever erected in the world (so we are informed), was from the Euston-square Station to Camden Town, under Professor Wheatstone's patent; and the first time this telegraph was ever worked was on one dark evening during a terrific thunder storm. The operators on this occasion were Messrs. Cooke and Wheatstone, and Mr. Stephenson, the engineer; and as the needles successively and quietly pointed to the required letters, during the warring of the elements without the triumphant sensations of those engaged in the experiment may, perhaps, be better imagined than described.

DIAMOND GLASS CUTTING.—Our correspondent, in last week's Journal, will find the answer to his inquiry, by Dr. Wollaston, in the *Phil. Trans.*, 1816, p. 265, where he can read the investigation entire, and make an abstract of it for our columns, according to his own views.

"An Engineer" (Charing-cross).—There is neither sense nor justice in the communication on the iron bridge in Dover-street, and which is in no way adapted for our columns. The mere telling of Sir John Bennie and Mr. Brunel is a very unsatisfactory way of meeting their arguments, much less of "refuting their opinions."

"Enquirer" (Broad-street).—The Archies Court is the highest ecclesiastical court of the Archbishop of Canterbury, so called from the archbishop's church and the name of the Bow, Chesham, where they originally held their sittings. Since the fire of London their locale has been in Doctors' Commons.

"A Merchant" is informed that we cannot afford space for his "History of the Rise and Progress of Steam Navigation."

"J. D."—We contemplate making some further alterations in our Share List, and which may, possibly, embrace those suggested by our correspondent.

"B."—The capabilities of "the Hole" as a district for lead mining are considered to be very great, lying as it does in the heart of the great Cumberland lead district, and surrounded by so many rich mines. By reference to "Forster's Section of the Strata," we find the stratification for all the beds between Grindstone Hill (marked 117 in the section) to the Tyne bottom limestone (marked 190), crept out on the property, and this comprises the richest part of the lead measures, from which most of the ore has been obtained; and there appears little doubt but that capital, skill, and energy, judiciously applied, would soon find a good return. There is one material advantage to the mine in Aiston Moor—from the mountainous nature of the district, almost all the mines being entirely drained by dry levels, and the machinery necessary for dressing the ore is worked almost exclusively by water-power; indeed, it would be difficult to go half a mile in any direction without finding a favourable place to erect a water-wheel, and notwithstanding the extensive mining which is carried on, the steam-engine is almost unknown there. One great drawback, however, to Aiston Moor has been its distance from any railway, which involves every one engaged there in the very serious expense of carting their produce more than 30 miles over a heavy country; but this will be remedied next year, when the branch line from the Newcastle and Carlisle Railway will be opened to Aiston.

"W. R."—We shall continue to publish the names of the colliery inspectors as they are appointed.

TIN-PLATE TRADE.—We are perfectly aware that the rate of wages stated in the article in our last Number must not be taken as that of the average earnings of the tin-plate workers. In the case instanced by Mr. E. Perry, the workman was engaged in a particular branch of the business; he was termed by Mr. Perry a "wise" man, and his may be an exceptional case of high wages. It is not our intention, however, that even the delegates do not allege any peculiar grievances, but that the workman, except that of a difference of price in some articles paid by the various manufacturers. Were they so notoriously badly paid, we may be sure we should have heard of it. The practical question really is, what have the "delegates" done for the tin-plate workers, beyond teaching them to be dissatisfied with, from aught that appears to the contrary, very fair wages?

SILVER.—Having lately come into possession of a mineral property, I am about to make recoveries of a portion of the coal, and, not being practically acquainted with the business, shall be obliged if some of your numerous readers will enlighten me on the subject of steam-engines, as to the description which are most efficient and economical; also, what description and size of pit shafts are best. The coal is 16 ft. thick, and larger in the adjoining mines, and dip on incline is 1 in 3, at a depth of 130 fathoms. In fact, any information on the subject will oblige—A STAFFORDSHIRE MAN.

"A Shareholder" (Leeds).—We cannot ascertain any particulars respecting the undertaking—the office has been long closed.

"S." (Hobart).—The matter referred to in connection with the All-ry-Crib Mining Company having now been finally and amicably arranged, there is no necessity for our further advertising to it. We understand the operations of the company will be prosecuted with vigour, and we have no doubt, from the favourable reports which have reached us, with a satisfactory result to the parties interested.

G. E. H. (Cornhill).—Mr. Mitchell, the gentleman appointed to make a mineralogical survey of South Australia by Messrs. Williams, Foster, and Co., we understand embarked from the colony the 28th August last. This gentleman was formerly in the service of the Alten Mining Company, and subsequently at Messrs. Williams' mines in Cuba.

"A Mining Agent" (Redruth) can communicate with the directors of North Wheal Buller through Mr. Kershaw, Holt-hill, Truro, Cornwall, Cheshire.

PATENT LAW REFORM.—We have received a valuable communication on this subject from our able correspondent, Mr. David Muesel, the insertion of which we regret being compelled to postpone until our next.

ERRATUM.—In Mr. David Muesel's letter on the Lords' Committee, there is an important error, which was overlooked last week. For "110 per cent." as printed, read "1-10th per cent."

G. Francis (Bridgewater).—The Sane diamond, it is stated, was purchased by the Demidoff family, in Russia, for 5,000,000 rubles. It was one of the crown jewels of Burgundy, and worn by Charles the Bold; after the battle of Grandson it was found by a Swiss soldier, and sold to a priest for a florin (1s. 8d.), who subsequently disposed of it for 3 fr.; in 1489 it was in the possession of Antonio, King of Portugal, who, when obliged to fly that country, mortgaged it for 40,000 livres; it was then sold to De Sane for 100,000 livres. Henry III. borrowed the gem; the servant who carried it was set on by robbers and slain, but the diamond was not found, he having swallowed the jewel. James II. of England, then became its possessor; from him it passed successively to Louis XIV. and XV., and is now the private property of Count Demidoff, who, we have heard, is the richest subject in the Russian Empire.

* * * It is particularly requested that all communications may be addressed—

TO THE EDITOR,

Mining Journal Office,

26, FLEET-STREET, LONDON.

And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, NOVEMBER 30, 1850.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all newsagents, at the Royal Exchange, and other parts of London.

The resolutions adopted at the meeting of the iron trade at Glasgow, referred to in our last Number, do not differ in spirit, and hardly in words, from those agreed to at the previous meetings at Liverpool, Manchester, and London. The "scrip system," which had been denounced at the last-named meetings, was no less the subject of condemnation at Glasgow. As its evil results have been felt in common throughout the iron trade, so also there is a community of purpose in putting it down. It appears, however, from a resolution transmitted by the Scotch ironmasters to the Glasgow committee, that the former are disposed to throw the responsibility

of suppressing the system on the iron merchants, as will be seen by the terms in which it is drawn up.

Resolved by the ironmasters present that they are all willing, not merely for themselves, but to recommend to those absent, to concur with the iron merchants in the abolition of the scrip; but as they are entirely in the hands of iron merchants purchasing for cash, they cannot become bound to refuse to issue scrip to such parties if required. The iron merchants will thus see that the abolition of scrip is a matter resting entirely with themselves, the ironmasters having no power to do more than to concur in what they consider a desirable object with those who have really the power to receive and enforce that object.

How far the Glasgow committee concur in this view of the matter is not stated; it is doubtful, nevertheless, whether the Scotch ironmasters are altogether the innocent victims of a bad system which they are desirous of appearing, and whether, in fact, they have ever exhibited much antipathy to the issue of "makers' undertakings to deliver" whenever required. The temptation must have pressed quite as strongly on them as on the iron merchants, seeing that the more of their scrip converted into cash, without the iron being made or delivered, the greater their amount of available capital. The absolute receipt of cash must have been a positive boon, while the delivery of the iron is a much more vague and indefinite affair. They cannot even now, it seems, refuse to issue scrip to the iron merchants if required—the "cash" forming an inducement, under the circumstances, quite irresistible. We are afraid, therefore, that if the abolition of the scrip system is to depend upon the exhibition of any extraordinary virtue on their part, the chances of its extinction would be but small. Happily the matter does not rest with them. So manifold and great have been the evils produced by it, that the most respectable parties connected with the iron trade have resolved that it shall exist no longer—or, at least, they are determined to discountenance it by every means in their power. We may, consequently, soon hope to see iron scrip at a discount, even among those who have been in the practice of doing business upon that system. It can neither be safe nor honourable for the dealers and brokers to patronise "scrip," which is in bad odour with the magnates of the iron trade.

The plan of storage is one, the necessity of which is admitted at the various meetings which have taken place, and the committee for carrying it into effect includes, we observe—Messrs. T. ROBINSON, S. SMITH, of Liverpool; W. BIRD, J. FIRMSTONE, of London; E. BUCKLEY, T. PRICKETT, of Manchester; and D. REICHMANN, T. HERTZ, of Glasgow; parties who, from their high position and respectability, may be said to represent the feelings of the majority of their brethren in the trade. Under such auspices, it may be hoped that the crusade against the scrip system will be successfully carried out. The storekeeper's warrants, which the Glasgow committee represent as the only safe documents to be tendered as delivery orders, will be, we suspect, something very different in estimation from much of the iron scrip that has been so long afloat, to the der

alogist are well known, in addition to his practical knowledge, is of opinion that this mode will last; and this is not deduced from any theory, but actual observation. If he is right in his conjectures, the Alton Mines will speedily regain that prominent position which they once held, and which untoward events and unforeseen causes prevented them from retaining. The Quanshan Mines, which are a branch of this establishment, are making likewise fair returns; and as their ores are good fluxes to those of Alton, the smelting is prosecuted to advantage. We were gratified to receive that Mr. Thomas, to whose services the directors owe so much, received that mode of honour so due to him; and we feel assured, from the well-known liberality of the company, that when a dividend is declared, it will be expressed in a more tangible way than by a vote of thanks. It is always a great source of pleasure to us to be able to speak favourably of any undertaking, and we conclude by saying to the Alton shareholders—"Go on and prosper."

In our columns of to-day will be found a lengthened communication from a correspondent, treating on the mining interest, and the best mode to be pursued, according to the writer's notions, to advance that of the capitalist. It has ever been our object to submit the views of "One and All." It would appear to us that our correspondent is somewhat "too fast;" while the observations put forward by him show a want of practical experience beyond his own immediate circuit. In some points we agree with him, but he must excuse us when we say he does not so fully understand the subject, as to be justified in putting forward suggestions and opinions, which, were he to reconsider, we feel well assured he would readily withdraw. We have not space to dilate on the matter, but one or two points will suffice. The writer first asserts that the great drawback to mining adventure is, the limited number of shares into which each mine is divided. Now, he must needs be very innocent, if he knows not that where shares are limited in number—as in Consols, Treasurers, East Pool, East Wheel, North Roskear, Par Consols, &c.—the interest was so divided as to preclude "jobbing," or shares passing from one to the other, with that brokerage commission, or "turn," which so many well understand. We, however, perfectly agree with our correspondent, that it is most desirable the number of shares of which the mine is constituted should be increased, as affording greater facility for disposal, and, at the same time, rendering the project more generally known. In following out the paragraph to which our attention is directed, we find that Mr. Allsop complains of "the want of a suitable market, or place of sale and exchange, and the consequent paucity of fit and proper agents." Now, we are free to admit that there is a want of "a suitable market, or place," but we cannot fall in with his views, that there is a "consequent paucity of fit and proper agents." The letter given in another column will best speak for itself, and affords ample means to our readers to draw their own conclusions.

We are well pleased to learn that some progress has been made in the establishment of a MINING SHARE EXCHANGE, and that the measure projected by ourselves—that of grafting on the Stock Exchange the transactions in mining—is likely to be carried out. All who are interested in mines, and those who wish that operations in the purchase, or sale, of shares should be *bona fide*, and carried out with honesty of purpose, will, we feel assured, learn with pleasure that, although no outward sign has been shown, yet those interested in mines, as also the Committee of the Stock Exchange, have not been dormant. We think we may say, on authority, that the committee appointed by the mining interest, with that of the Stock Exchange, have so far perfected arrangements that, in all probability, the "library" will be appropriated to the business transacted in mining shares. There are some points which require much consideration—the rules of "the house," as we have before observed, precluding the admission of the many; but we have every reason to suppose they will be so modified as to allow of a market being established, which, while it is distinct in one sense, will form a part and parcel of the Stock Exchange. We shall hail with pleasure the completion of the measure, being well satisfied that an amalgamation like that contemplated will be attended with advantage to the mining community, and, at the same time, tend to advance the interests of the capitalist, and place on a secure basis the investment in mining enterprise. We shall watch its progress, and report accordingly.

THE IRON TRADE.

FURNACES ERECTED, AND IN BLAST, IN SOUTH STAFFORDSHIRE, IN 1850.

Name of works.	In.	Out.	Total.	Owners and occupiers.
Darlington	1	1	2	Addenbrooks & Co.
Bilston	1	1	2	W. Baldwin & Co.
Gold's Green and Caponfield	3	3	6	J. Bagnall & Sons.
Darlington Green	1	1	2	Bills and Co.
Ettingshall	1	1	2	Banks and Co.
Dudley Wood, Ketherton, and Corngraves	5	5	10	New British Iron Company.
Withymoor	1	1	2	Best and Barra.
Russell's Hall	3	3	6	Blackwell and Co.
Woodside	2	2	4	Geach & Cochrane.
Tipton	1	1	2	E. Creswell & Sons.
Wolverhampton	2	1	3	Dixon, Neve, & Co.
Crookley	3	3	6	T. Davis and Sons.
Oldbury	2	2	4	Capt. Bonnet.
Park Head	1	1	2	Evans and Martin.
Pelsall and Blaxwich	3	3	6	W. F. Fryer.
Says	4	4	8	W. & G. Firmstone.
Shut End	1	1	2	J. Bradley and Co.
Netterton	1	1	2	M. & W. Grazebrook.
Corbyn's Hall	2	2	4	W. Matthews.
Horsley	2	2	4	Hardman and Co.
Dudley Fort	2	2	4	Hopkins and Son.
Buflery	1	1	2	Joseph Haden.
New & Old Level and Conygreve	5	5	10	Lord Ward.
Chillington	2	2	4	Barker and Co.
Cosley	1	1	2	Turley and Co.
Bilston and New Birchill's	2	2	4	George Jones.
Bentley	3	3	6	Void.
Wednesbury	2	2	4	Void.
Park-lane, Tipton	1	1	2	Lloyd, Foster & Co.
Oak Farm	2	2	4	Void.
Parkfield	2	2	4	Parkfield Co.
Bilston Brook	2	2	4	G. Hickman.
Cosley, or Deep Fields	2	2	4	Benton and Co.
Middlefield	3	3	6	W. Riley.
Stow Heath and Oiler Bed	4	4	8	W. Sparrow & Co.
Willingworth	2	2	4	Haines Brothers.
Waterloo	2	2	4	Colborn and Co.
Windmill End	1	1	2	William Haden.
Wednesbury Oak, Union, and Priest Field	5	5	10	Williams and Sons.
Tipton Old and Hall Fields	3	3	6	William Ward.
Bilston	4	4	8	B. Gibbons, Jun.
Prior's Field	3	3	6	T. Vernon.
Brettell Lane	2	2	4	H. B. Whitehouse.
Corbyn's Hall (new)	3	3	6	J. and W. Wheeler.
Meadow Furnace	1	1	2	B. Gibbons, sen.
Willenhall	1	1	2	Hall and Co.
Rowley	1	1	2	David Jones.
	1	1	2	T. and J. Badger.
Total	92	82	144	

[The paper on "The Iron Trade of South Staffordshire—Past and Present," of which the above table forms a part, will be continued in our next Journal.]

THE GREAT EXHIBITION OF 1851—A GIANTIC GLOBE.—We learn that it is intended to make a globe of immense magnitude, with a corresponding magnetic axis, attached to great batteries, by which the whole phenomena of terrestrial physics will be exhibited, according to Mr. Hopkin's principles of geology and magnetism. The axis is to be placed horizontally, supported by centres, round which a circular platform is to be erected, from which the whole of the surface of the globe may be seen as it slowly rotates on its axis—the geology, volcanoes, and the aurora lights, at each pole, and other interesting natural phenomena. It is a grand idea, and, if carried into effect, will be one of the most interesting and instructive subjects of the forthcoming exhibition.

PROVISIONAL REGISTRATION DESIGNS' ACT—RULES ISSUED BY THE BOARD OF TRADE.

The following is the substance of the rules just issued by the Board of Trade, pursuant to Designs' Act, 1850. It will be seen that they offer no facilities beyond what the Act itself gives to the inventor or designer:—

1. Two copies of the drawings are to be furnished to the registrar, and in case the design is to be exhibited, as permitted by Act, at the Great Exhibition for instance, then a third copy must be furnished.

2. In the case of paper hangings, calico prints, and other furniture, a portion, or specimen thereof, may be substituted for the drawings, &c., provided the specimen admits of being conveniently pasted in the registry book.

3. When the provisionally registered article is one within the Ornamental Designs' Act, 1842, then the sheet with the drawing thereon (or specimen, as aforesaid) shall have the name of proprietor, or of the firm being proprietors, together with the address; and when for complete registration, the class or classes, under which such design is to be registered, must be added. When the design is within the Utility Designs' Act (1843), a description of the same must be added, such as now required under that Act. The registrar has power to dispense with the drawings, and some other particulars, if he deems it proper so to do.

4. Persons desirous of registering sculptures, casts, &c., must enter similar drawings, or descriptions and particulars.

5. One of the said registration papers, with drawing or otherwise, is to be filed at the Registry of Designs, the duplicate is to be returned to the party registering with the certificate of registration thereon, and the triplicate copy is to be deposited in the Exhibition, where the design is exhibited.

6. Upon production of a written transfer, and request to register same, the registrar shall register such transfer. If the certificate of transfer be required, the party must furnish a copy of the registration paper, &c., as when a registration of design is to be effected in the first instance.

7. Upon producing a design, together with the registration mark, or the mark alone, or the number of a provisionally registered design, the registrar shall give a certificate as to the existence of such copyright, &c.

8. All the services before mentioned are to be performed on payment of such fees as the Board may direct.

[It is understood that the charge for provisional registration is to be one shilling to exhibitors at the Great Exhibition, and one pound to all other persons.]

If the patent in Scotland or Ireland were obtained previous to the enrolment of the specification of the English patent, granted to the other party, and previous to any public use or publication of the invention in England, or other part of this realm (which term appears to include the whole circle of Her Majesty's dominions), it then seems to be law that, although one party is acknowledged by his patent to be the patentee and proprietor for England, the other party would still be held to be a true and lawful patentee and proprietor for Scotland or Ireland. Mr. Campin, the patent agent, to whom we referred this question, very pertinently adds, that this is just one of those cases where the glorious uncertainty of the law, especially the law of patents, comes out in full force, and he considers we are bound to join the array of patent reformers.

PATENT LAW REFORM.

The committee appointed by the Society of Arts held their second meeting at the society's house, in the Adelphi, yesterday. The Right Hon. T. Milner Gibson, M.P., was in the chair; and the other members of the committee present were Prof. Forbes Royle, Lyon Playfair, Bennet Woodcroft, and Edward Solly; Mr. H. Cole, Capt. Ibbetson, Mr. Highton, Mr. Brace, Mr. Newall, of Gateshead, and Mr. Prosser, of Birmingham. The committee have decided on issuing an extended statement of the evils of the present system, and of the principles which should guide legislation; in preparing which, we understand, they have been assisted by a large mass of documentary information from members of the working classes and others—sufferers from the existing evils. In addition to the general principles adopted at the first meeting, which affirmed that inventors, designers, &c., ought not to be subjected to any other expenses than such as may be absolutely necessary to secure to them the protection of their inventions, and that the difficulties and anomalies experienced in connection with patents should be removed, the following resolutions were passed:—

1. That the present tribunals are insufficient for the trial of subjects of design and invention.

2. That there should be penalties for using the title of "patent" or "registration," where none has ever existed.

3. That registration of inventions shall be obtainable for a period of one year on payment of 5*l.*; and shall be renewable for four periods of five years each, on payment of 10*l.* at the first renewal; 20*l.* at second renewal; 50*l.* at third renewal; and 100*l.* at the fourth renewal.

4. That the surplus profits, after paying office expenses and compensation, shall be directly applied to some public purpose connected with invention; but not carried to the consolidated fund.

New Patents.

SPECIFICATION ENROLLED DURING THE PAST WEEK.

J. HENMAN, Walsall, Stafford, clerk: For improvements in the manufacture of cylindrical and other tubes. The present improvements are specially adapted to the manufacture of such drawn tubes of soft metal as are required to be of a conical form. The metal after having been soldered on a mandril, is passed through a coil of wire, by which the tube is exactly fitted to the mandril. Fitted tubes are made by soldering the metal on a fluted or grooved mandril, then placing the rods of metal exactly over each groove, and passing the whole either through a soft metal die, by which the rods are forced into their respective recesses, or by means of a coil of wire, as in the first operation. The patentee disclaims the employment of a soft metal die, except when used for the purposes of his invention.

LIST OF PATENTS GRANTED DURING THE PAST WEEK.

J. Benda, of Woodbridge, Suffolk, machinist, for improvements in certain agricultural implements.

G. Shepherd, of Holborn-bars, London, civil engineer; and C. Burton, of the same place, operative chemist, for certain improvements in the means or appliances used in conveying telegraphic intelligence between different places.

C. Nickels, of York-road, Lambeth, Surrey, gentleman, for improvements in the manufacture of wooden and other fabrics.

J. Hamilton, of Prince's-square, Glasgow; and J. Weems, of Johnstone, Scotland, for improvements in warming and ventilating buildings and structures.

D. D. P. Cunningham, of Bury, Hants, yeoman and pursuer in the Royal Navy, for improvements in reefing sails.

F. B. Anderson, of Gravesend, Kent, optician, for certain improvements in spectacles.

R. O. Banks, of the firm of Banks, Brothers, of Wierhouse Mill, Chesham, Bucks, and 20, Piccadilly, London, paper-makers and card-makers, for improvements in the manufacture of paper.

F. F. Woods, of Pelham-terrace, Brompton, Middlesex, builder, improvements in paving.

J. Ainslie, of Alington, Middlesex, now residing at Perry-hill, Sydenham, Kent, dialling engineer, for certain arrangements and apparatus for the manufacture of bricks, tiles, and other articles made from clay and other plastic substances, parts of the said arrangements and apparatus being applicable to the treatment and preparation of earthen, mineral, animal and vegetable matters.

J. A. Elmalie, and G. Simpson, of Union buildings, Leather-lane, Holborn, importers of quicksilver and tin foil manufacturers, for improvements in sheathing ships and in protecting and confining gunpowder and certain compounds thereof, and in the materials used for such purposes.

H. P. Bart, of the Blackfriars-road, Surrey, civil engineer, for improvements in the manufacture of window-blinds.

W. H. Ritchie, of Kennington, Surrey, gentleman, for improvements in stoves.

J. E. Chabert, of Paris, France, for improvements in machinery for washing and drying linen and other fabrics.

R. Barber, of Hotel-street, Leicester, late cotton-wool-inder, for improvements in the manufacture of reels for reeling and stands for reeling, which improvements are applicable to the manufacture of silk or woolen yarn.

H. J. Borill, of Boulevard, Poissy, France, engineer, for improvements in the manufacture of bricks.

C. Royle, of Birmingham, manufacturer, for improvements in the manufacture of dress pins and other dress fastenings and ornaments.

R. Blakenmore, Esq., M.P., of the Leys, Gauerer, Hereford, for improvements in the construction of ploughs.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

J. Last, Haymarket, the continental wardrobe portmanteau.

J. W. Smith, Birmingham, button.

J. Allen, Clarence-place, Hackney-road, rocking-horse.

G. H. & G. Nicoll, Dundee, portable family mangle.

W. C. Middleton, Long-acre, centripetal wheel-plate.

F. C. Penrose, Trafalgar-square, the Helicograph, or logarithmic spiral compass.

G. Smith, Castle-street, Liverpool, waistcoat having a buoyant lining.

C. Burdman, Pond-street, Sheffield, cover for cruet or spirit frame.

Ross and Sons, Bishopgate-street, shield for a comb.

W. Riddle, East Temple Chambers, Whitefriars, latch and bolt union.

Burgess and Key, Newgate-street, grater.—*Mechanics Magazine.*

THE ELECTRIC TELEGRAPH.—Application is intended to be made to Parliament in the ensuing session for Acts to incorporate four different telegraphic companies—viz., one for the establishment of a submarine telegraph between England and Ireland; another for a similar undertaking between England and France; the third is of a more general character, and, under the title of the European and American Printing Telegraph Company, comprehends a wide geographical range of action in the old and new world. These three companies propose to use the printing telegraph invented by Mr. Jacob Brett, while the fourth, under the denomination of the Magneto-Electric Telegraph Company, confines itself to the patents granted to W. G. Henley, and D. G. Foster, embodying the application of Faraday's beautiful discovery to the movement of magnetic needles, &c. It is rather difficult to state the precise sphere of action contemplated by this last company, as the proposed incorporation is for the purchase and use of certain patents in Great Britain and Ireland—and elsewhere. With so much competition before us, it will go rather hard if we do not have a cheap telegraph presently.

IMPORTATION OF QUICKSILVER.—One thousand packages of quicksilver have been brought by the vessel *Mary Anne*, which has arrived in the docks from Seville, consigned to a firm of the highest commercial eminence.

TREATMENT OF COPPER ORES.—No. VI.

By JOHN MITCHELL, Esq., F.C.S., author of a *Manual of Practical Assaying, &c.*

It has been already stated that the motion of the combustible gas is completely and perfectly apparent by that of the flame, and that the velocity is far from considerable, either in the neighbourhood of the bridge or in the body of the furnace. This velocity can be calculated approximately in different parts of the furnace from the following data:—

In about 11½ hours 924 lbs. of solid combustible are consumed in the hearth by the reaction of 869 lbs. of atmospheric oxygen, and in that time there is obtained—

Combustible gases disengaged by the action of heat	..... 284	180° 4
Carbonic oxide	..... 1322° 4	4611° 2
Nitrogen	..... 2308° 4	
Clinker	..... 90° 2	
Total	..... 4701° 4	

This gas, at the standard temperature and pressure, has the following approximate volume:—

Combustible gases disengaged by the action of heat	..... Cub. feet 4441° 0
Carbonic oxide	..... 19495° 0
Nitrogen	..... 36508° 0

This volume is nearly tripled by the temperature to which the gas is submitted between the arch of the furnace and the layer of flame, consequently about 181,323 cubic feet pass in the 11½ hours, or about 4½ feet per second, weighing one-tenth of a pound. On the other hand, the transverse section of the space above the bridge is about 6 square feet; the size of the arch in the centre part of the body of the furnace is about 12 feet. The thickness of the combustible gas varies from about 1½ ft. near the bridge, and becomes gradually thinner as it approaches the flue, where it is only a few inches in thickness; in the centre of the furnace the mean thickness is about 6 inches, consequently the transverse section of the layer of combustible gas in this region of the furnace is 6 square feet. The combustible gas moves in the body of the furnace at not more than 2 of a foot per second. The whole space in the furnace contains about 88 cubic feet of combustible and burnt gases, and each molecule of gas remains about 18 or 20 seconds in this part of the furnace. From this it may be stated that the operation of calcining in Welsh furnaces is conducted under the influence of a nearly stationary layer of gas in slow combustion.

The working of a charge of ore commences immediately the last portions of the previous charge have been withdrawn. Each charge weighs 345 tons, and is previously introduced into hoppers above the furnace, from which it falls on the sole, when the registers, closing the lower part of the hoppers, are opened. The workmen, after closing these registers, evenly spread the charge of ore on the floor of the furnace by means of long iron rakes, or rables, successively introduced into the four work-holes. The openings, or embrasures, of these work-holes are placed in such a manner that the workman can spread the ore in any part of the furnace. After the spreading of the ore is accomplished, the work-holes are closed. The ores employed for this operation are not completely pulverulent; besides the fine portions from dressed and washed ores there is much that is merely broken up in small pieces not exceeding the size of a nut. These ores, taken from various suitable heaps, are mixed during the charging the hoppers in such proportions as the meltings following the calcinations require. The instant the ores fall on the floor of the furnace they are mixed as much as possible during the spreading, and the mixture is finally completed in the various manipulations required during the operation of calcination.

The temperature of the calciners ought to be very carefully graduated. The sudden application of a high temperature would occasion a too rapid combustion in the surface of the fragments of iron pyrites, which are always present in excess in the ores submitted to calcination. Under the double influence of the general temperature of the furnace, and that which results from the combustion of the sulphur of the pyrites, the surfaces of the fragments become semi-fused and agglomerate. This agglomeration, and the superficial coating of sulphuretted and oxide of iron, very much retard the ulterior progress of the calcination. A temperature increasing too slowly naturally retards the calcination, from a totally opposite cause; with a suitably graduated temperature the pyrites, without in the least softening, is decomposed in concentric layers, which constantly allow oxygen to penetrate the sulphuretted mass, through a porous and friable envelope of peroxide of iron. The fusibility of the ore gradually diminishes, in consequence of the pyrites losing that portion of sulphur which can be volatilised by heat alone, and more especially because the sulphuretted iron, and other sulphurets more eminently fusible, are gradually replaced by metallic oxides which are not so. The calcination ought to be pushed forward (but without compromising its success), by softening the substances in the furnace, by gradually increasing the temperature from the commencement to the end of working a charge.

The temperature of the furnace is, therefore, at its maximum when a completely worked charge is removed and a fresh one introduced. But in order to fulfil the fundamental condition of slowly heating newly introduced charges, it is not necessary to submit the furnace to a previous cooling, as practised in some other metallurgical operations; for the considerable mass of ore operated on renders this unnecessary—this is evidently to the great profit of the operation itself. The furnace, which at the moment of the introduction of a charge is bright red, rapidly yields its heat to 345 tons of ore suddenly thrown into it, and occupying from 4 to 5 inches in thickness on the floor. About a quarter of an hour after the charge is in the furnace, the temperature is reduced below a dull red, and it often happens that the temperature has fallen so low, that a fragment of zinc held half way between the roof of the furnace and the surface of the ore does not soften; but by this time the ore has acquired a sufficiently elevated temperature for the hygrometric or combined water to be disengaged in all parts, and even sometimes some sulphurous vapours appear in that portion of ore nearest the bridge. There is thus obtained in a quarter of an hour, by means of the enormous quantity of heat accumulated in the furnace, a result which by direct heating would have required a very much more considerable time. This fact deserves attention, because it is partly owing to it that the Welsh calcining furnaces are so much superior to the smaller ones employed in many parts of the continent.

The draught exercised by the chimney of the calciner occasions a considerable quantity of cold air to enter the furnace by the work-holes, when they are open during the removal of an elaborated charge, or the spreading of a fresh one. This determines a rapid loss of the accumulated heat of the furnace in positive waste. It is, therefore, necessary to abridge as much as possible the time required during those manipulations—this is effected by the combined labour of two workmen.

About a quarter of an hour after the commencement of the operation—that is to say, the instant the charge is spread on the floor—the workman takes some little repose from the great fatigue consequent in the charging and discharging, after which he attends to re-establishing the fire in its former activity, which had decreased towards the end of the other operation, and more especially in the last half hour. Closely studying the state of the clinker, he carefully removes the fragments, which appear by their presence to restrict the proper supply of air; he re-forms the orifices which have become filled up, and thus favours the uniform admission of air to all parts of the grate, and finally introduces a new charge of coal. From this first charge of fuel to the end of the operation the fire is attended to in a regular manner. The quantity of fuel supplied, and, consequently, the amount of gas admitted to the body of the furnace, hereafter remains constant. The charges of the fuel are regularly made at intervals of about 1 hour and 20 minutes, and about nine are made during the working of one charge of ore. At each time about 047 ton of fuel are introduced, forming a layer of about 1½ in. in thickness. The fire-door is hermetically closed by means of the fuel itself. This opening is furnished with a long embrasure, which, in the interval of two consecutive charges, remains full of fuel. At the moment of a fresh charge of fuel, that already closing the opening is pushed with a rake into the hearth, and the space thus produced is filled with fresh fuel.

An hour after the commencement of the operation the sulphurets are in full decomposition, but this action is exclusively concentrated to the upper layer of ore, penetrating about half an inch. This layer is that which is submitted directly to the calorific influence of the layer of flame spread under the roof, and the oxidizing influence of the layer of air between the flame and the ore. The oxidation of the sulphurets also develops a considerable amount of heat, and thereby favours the progress of calcination. These calorific influences, principally confined to the upper layer, gradually elevate the temperature above the mean temperature of the furnace, in spite of the cooling influence exercised by the immediately inferior layers of ore. If, however, things were left too long in

this state, the success of the operation would be endangered by the softening of the surface of the ore, as already pointed out.

Two hours after the commencement of the operation the reaction on the surface of the ore takes place with great energy, and the workman exercises for the first time the characteristic operation in calcination, which consists in renewing the surface with a rable, and tracing on the whole surface of the mass a series of parallel furrows. The whole operation of rabling lasts about 12 minutes; but in order to prevent, as much as possible, the cooling consequent on this operation, the workman employs successively each work-hole, taking care to keep the three closed at which he is not engaged. These rablings are renewed every two hours, so that five are made during the elaboration of each charge.

Eleven hours and a half after the commencement of the operation, the workmen of two adjoining furnaces unite their efforts to remove the roasted charge. The four work-holes are first opened, and the plates removed from the orifices in the floor of the furnaces, which communicate with a chamber under the furnaces destined to receive the calcined ore; and, lastly, by means of the rable, the ore is drawn forward to these orifices, through which it falls into the chamber below, as just stated. It may be here remarked, that the opening of the work-holes immediately interrupts the draught through the hearth, and the arrival of combustible gas in the body of the furnace, and, consequently, suspends all consumption of solid fuel.

The work of discharging is a very laborious operation. The ore at the moment of extraction from the furnace is not, nor ought it to be, completely desulphurised. It yet contains about half the amount of sulphur it had at the beginning. In contact with a red heat with the exterior air, it evolves a very considerable quantity of sulphurous and sulphuric acids, which spread in the works, and render the air nearly irrespirable for persons not accustomed to such an atmosphere. The discharge made, a new charge is introduced, as already explained.

The facts already given show the principal conditions under which the calcination is effected. Nevertheless, there are many phenomena which must be mentioned, in order to complete the theory, very simple apparently, but very complex in reality, of this the first operation of the Welsh method. The interior of the central part of the furnace has a vertical height of 2.296 feet, and is subdivided during the operation into three distinct layers, thus—

Flame, combustible gas, and burnt gas.....	Feet	4.920
Atmospheric air, mixture of nitrogen, and the gaseous acids of sulphur		1.4104
Ore on floor		39.36

Total

These two gaseous layers present phenomena of motion, and variations of thickness exceedingly worthy of attention, and which are often remarkably distinct in the upper gas by the situation and undulations of the layer of flame, in the lower gas by the motion of the vapours of sulphuric acid. The layer of flame, whose position may be easily proved by looking into the furnace at any of the four holes pierced in the doors, gradually lowers itself from the top of the bridge to the level of the sole near the flues. This progressive lowering of the layer of flame is due to various causes—the inclination given to the roof, the current of burnt gases, which continually increase the volume of the gaseous mass superior to the flame; and, lastly, the kind of eddy produced by the sudden contraction near the flues—the only issues to the gas moving there in a much less considerable space. It can be very distinctly seen that the flues take away nothing but the burnt gases, or the mixture of those gases with a little combustible gas; for the rudiments of flame which are seen here and there, and which rise from time to time at this end of the furnace, are thrown against the lower part of the flues, and especially on that part nearest the floor of the furnace.

The limits of the lower gaseous layer are found by the same data; its height, equal to that of the bridge, is reduced to nothing towards the opposite extremity. The extreme weakness of the horizontal force given to the upper gas has already been noticed—the undulations of the flame rendering appreciable to the eye the extreme slowness of movement impressed on this gaseous mass, and confirm the exactitude of the calculation; they prove also that this movement increases in rapidity (about five times as great) at the entrance of the flues.

The movement is yet less sensible in the lower gas. The white vapours of sulphuric acid rise vertically with extreme slowness, without any appearance of horizontal movement; only these vapours approaching the layers of flame are turned on one side in the direction of the exit of the gas, and thus take the horizontal movement of the upper layer. Observing more particularly the phenomena which are manifested in the embrasures of the work holes, it will be remarked that currents of cold air, endowed with considerable rapidity of movement, are thrown into the furnace, either by the orifice pierced in the centre of each plate covering a work hole, or by the small fissures existing between the edges of this plate and the frame of iron against which it leans. The movement of this air is perfectly distinguishable by the eddying movements of the sulphurous vapours. It may be very clearly seen that the fresh air, much heavier than the gases already in the furnace, falls at once on the floor, where, coming constantly on the surface of the ore, replaces that which the progress of calcination has already altered. This current passes into the furnace, as will be seen, under the best possible conditions. It does not cool in the upper or middle parts of the furnace the gases already heated. It is taken directly to the surface of the ore, to which the contact of a cold body cannot fail to be favourable—it having already been shown that the tendency of ores containing much sulphur is to heat too much in the calcination; and it also furnishes oxygen in a pure state to that portion of the furnace where that re-agent is so particularly required.

[To be continued in next week's Mining Journal.]

THE IRON TRADE IN FRANCE.—A letter from St. Dizier states that great improvement has manifested itself in the iron trade, and that prices have lately considerably increased. Large orders have been received, and the foundries are all busily employed.

BRITANNIA BRIDGE.—The sale of materials at the Britannia Bridge was concluded on Saturday, the weather having been favourable throughout. There was a good attendance of mine owners and others, and high prices were realised. The proceeds of the sale of materials have been estimated at about 12,000*l*. The only articles unsold are the two large iron pontoons and some large capstans used at the floatings. The hydraulic presses have been purchased by their makers, the Bank-quay Foundry Company, Warrington, for the purpose of display at the forthcoming Exhibition of 1851.

NEW PATENT TURBINE WATER-WHEELS.—Mr. James Thomson, C.E., son of the late Dr. Thomson, Professor of Mathematics in the Glasgow University, has just taken out a patent for an improved turbine water-wheel, the results of which are expected to prove of very considerable importance. As a wheel upon the new plan is about to be put up, there will soon be an opportunity of practically testing the value of the invention; but, in the meantime, we may state what the inventor reckons upon from calculation and experiment. These water-wheels are suitable for obtaining power from any falls of water, whether high or low. For using high falls, while they are equal, or perhaps even superior, to bucket-wheels, they have a great advantage over these in their small dimensions. Thus, for a fall of 100 feet, one of the new wheels, of 80-horse power, is itself only about 15 inches in diameter, while the iron case in which it revolves, and from which it receives the water, is only about 4 feet in diameter. A bucket-wheel, for the same purpose, would be 100 feet in diameter, if any one would attempt to apply a wheel of that kind for so high a fall. For very low falls, with large quantities of water, the wheels commonly employed are those named undershot, or paddle, wheels: these take the power very imperfectly from the water, and they are used at present merely through the want of something better. This want is now supplied by the new turbines, as they are no less efficient for low than for high falls. In fact, any manufacturer having an undershot-wheel, and not obtaining so much power from it as he would wish, may now increase the power of his supply of water to about double its present amount, by substituting one of the new turbines for his undershot-wheel. When compared with the breast-wheels, commonly employed for falls not quite so low as the last, the new wheels possess nearly an equal advantage in the saving of power. One important point in their favour, especially in the case of low falls, is that their action is not liable to be impeded by the rise of the back water in floods, which, in breast and undershot-wheels, is found so detrimental. If the back water should rise 2 feet while the upper wheel rises only 1 foot, the available fall is diminished by 1 foot, whatever wheel may be employed; but, in the case of the new wheels, the evil stops here, while, in the case of the breast and undershot-wheels, much of the power which ought to be employed in grinding corn, in spinning flax, or in other such work, is spent in churning the water in which the wheel is partly sunk. It is, of course, impossible, in so short an article as the present must be, to go into any detailed explanation of the mechanical structure of the new wheels. It may be sufficient to mention, that Mr. Thomson's patent includes two distinct kinds of wheels, both of which belong to the very extensive class of water-wheels called turbines, and that one of them may be regarded as an improved form of the French Danais; while the other may be conceived to be nearly what the turbine of Fourneyron would become if turned inside out.—*North British Mail*.

Original Correspondence.

COPPER SMELTING.

SIR,—In your recent Numbers, some observations have been made respecting the merits and demerits of the various patents taken out for smelting copper. It is very true that an old routine, well established, is preferable to an improved method, badly applied by persons not possessing practical experience, who are, unfortunately, too often the means of leading capitalists astray by plausible statements, notwithstanding unfavourable results.

Many establishments have been all but ruined in consequence of such proceedings, and more especially if the company becomes infatuated by mere plausible accounts, without corresponding returns. This I have frequently experienced myself in various processes of reduction in iron, copper, lead, silver, and zinc ores, and is, I believe, the main cause of so many failures in the first introduction of improvements.

To upset an ancient system, a person must be a good practical man, possessing a clear and unbiased head, capable of grasping at once the whole operation, prior to introducing improvements; and never be above receiving any useful hints or advice the humblest workman may impart. The ordinary method of reducing copper ores (sulphurets) of, say, 9 per cent. produce, requires for the production of 1 ton of copper, from 100 to 130 hours, consuming from 12 to 17 tons of coal—the sulphur, and other elements with which the ores may be alloyed, being expelled principally by the simple application of heat, and single decomposition by ordinary fluxes, &c., thus necessarily causing much time, waste of materials, labour, imperfect reduction of the ores, as well as impure metal.

The object of some of the patents, very properly, has been to effect the separation and reduction more rapidly, and with greater perfection, by means of fluxes and other ingredients, in different stages of the process, by a double and triple decomposition, and render the object of roasting more expeditious and complete, in such a manner as would enable smelters of the old system not only to carry it on without any difficulty or inconvenience, but to appreciate from actual results the real improvement.

It gives me great pleasure to state that during an inspection last week, of Low's Patent Copper Smelting Works, near Swansea, I found the above object had been to a considerable extent attained. I was much gratified with the arrangements, and the easy and quiet manner in which the manipulations were conducted, capable of producing weekly about 50 tons of fine copper, with comparatively few hands, and one or two agents.

It was evident the least improvement in the hands of a manager who has so well arranged the works, and put every thing in such a superior and economical working order, would soon be carried into practice, and surmount with ease the difficulties which are usually met with at the commencement of the introduction of a new process.

I found sulphurets of copper, of about 9 per cent. produce, reduced into very fine copper in 45 hours, with a consumption of coal not exceeding 6 tons, and the cost of the additional ingredients not amounting to 5*s*. per ton of fine copper, and all effected with ease, quiet, and to the satisfaction of master and workmen.

Austinfriars, Nov. 26.

EVAN HOPKINS.

IMPROVEMENTS IN THE MANUFACTURE OF COPPER.

SIR,—I quite concur in the remarks from a correspondent made in the Journal of the 16th inst., that the successful application of a patent does not depend so much upon its practicability as upon the expense compared with the process it is intended to assist or supersede.

It was for that reason I called your attention to the existence of Low's Patent Copper Company, which company, I believe, fully meets the required wants of the mining and smelting community.

The improvements effected may be briefly stated; one consists in a flux, inexpensive and simple in its application, the other in a modification of the smelting furnace, in addition to which considerable economy in labour ensues, from the facilities afforded by the simplification of the mechanical arrangements.

The old process now generally in use in the large smelting works of the Swansea district, according to a synopsis of Mr. H. Vivian's Paper on Copper Smelting, published in your Journal of the 11th August, 1849, requires eight operations, or manipulations, in the several furnaces—viz., calcining, melting, roasting, and refining, and the number of hours necessary for these processes amounts to about 130. Now, at the smelting works at Penclawdd, the furnace operations or processes never exceed five, and the time required is diminished, under ordinary circumstances, at least two-thirds. It is, therefore, obvious that a great reduction in both labour and fuel must ensue, added to which it is clear that much loss from the sublimation of the metallic particles is avoided.

Another important point must not be lost sight of—the diminution in first cost and wear and tear, effected from the small number of furnaces in use, as also a reduction in the quantity of copper absorbed and sunk in the bottoms of the furnaces, which it is well known forms a heavy item in the capital of the large smelters.

Your correspondent observes, "it would be interesting to see the patent process in operation here, or to know in what particular practical change the improvement consists." To this I reply, that Low's Company have now been in successful operation for upwards of two years, and the copper made by them is of unquestionable quality, and finds a ready sale. I think the saving in time, labour, and fuel, a sufficient practical improvement to seriously attract the attention of both miners and smelters.

Mark-lane, City, Nov. 26.

T. R.

COPPER SHEATHING.

SIR,—I notice, in your last paper, a communication from Mr. Prideaux, being a reply to a few remarks you thought proper to make on the 16th inst., respecting copper sheathing; and as Mr. Prideaux has thought proper to introduce my name, in relation to some former communications on this subject, I beg again to repeat that sheathing is as easily made durable now as it was in former times—the difference being, that then but very little of the purest and best quality of the copper had been selected for other purposes. They then roasted on their regular blistered copper, tapped it into clean sand, and then into the refining furnace. This done, and properly refined, they laded out the surface of the metal, and appropriated it for copper sheathing, which accounts for the uniform aspect, colour, gloss, and wear in former times; but the bottom of the pool for tile, and other coarse purposes. Of late years, there has been a great revolution taken place in the make of copper—one-third of the whole make being selected for Muntz's metal, &c.; the other two-thirds, which we call *hard bottoms*, and which contains such alloys as to render it almost unfit for sheathing, is roasted on to a pitch not quite free of regul, and tapped, instead of into sand, into the refinery furnace; and, when refined, the whole pool is laded out in cakes, and sent to the mills for sheathing; so as long as this selecting goes on, so long will blotches continue to appear. I do not believe that the Government, or any other power, could induce the smelters to alter their present method of making copper; or do I believe that they would sell their copper under the restrictions named by Mr. Prideaux. This I believe, and know that I could make such quantity of copper as would wear in sheathing seven, if not ten, years, or I would receive no remuneration for my labour.

November 27.

A ROASTER-MAN.

FOREIGN TARIFFS—THE IRON TRADE.

SIR,—It will be gratifying to those interested in the struggle to perceive that the free trade party on the continent has at length wrung from some of the leading protectionists, and the *Constitutionelle Zeitung*, the acknowledgement that "in principle freedom of trade is right and proper, and protective duties undoubtedly do diminish the property of consumers." With a little honesty and justice, it will now surely be impossible for them to continue defenders of a wrong principle of iron duties, which, as every one is in one way or the other a consumer of this important article, presses so heavily on all classes, and diminish the value of capital—i.e., property—employed in agriculture, trade, and commerce. It has been a favourite argument of protectionists that the duties were too insignificant to be felt; but, supposing the loss of agriculturists to be on every acre but 3 groschen (about 6*d*.); this amounts on 600 acres to 100 *rix* dol. annually, or the rent of 2000 *rix* dol. per farm, and a depreciation of property on all the land under cultivation in Prussia to 150,000,000 thalers by iron duties alone; whilst protectionist authorities give the whole value of the Prussian iron trade as but 14,000,000 thalers! Surely their ideas abroad of insignificant taxes differ very much from ours! Can one be surprised that industry does not prosper, that revolutions occur, and are continually dreaded, that property is unsafe, when a Government, in addition to the numerous other sacrifices of property, for the array of the person, forces by law all classes to support a branch of industry which could not otherwise exist, is a bur-

then to all, and a profit only to the rich noblemen surrounding the Throne, whose property the works happen to be. From iron duties this is innumerable, that not only do they drive capital from the country, but also industry, and with industry commerce, to seek a home in more congenial lands.—A CONSTANT READER: Nov. 26.

THE SLATE STRATUM IN IRELAND.

SIR,—In your Journal of last week is a paper from the pen of Mr. Ashdon, and authorised by six others, manifesting the capabilities of the slate island as being more than comparable to Wales for the production of slates. As Mr. Ashdon alleges the slate strata of Cork, Clare, Tipperary, Waterford, Wexford, &c., to dip under the Irish Channel, between Arklow and Wicklow, and rising again in Carnarvonshire, I assume the quality to be precisely the same; and as Mr. Ashdon does not contemplate to derive any benefit from economising the manufacture, the only saving which he holds out is merely the freight, land carriage, and avoiding breakage, which, at a glance view, seems natural enough for home consumption only. But is Mr. Ashdon aware of the fact, that the Bangor Slate Quarry alone turns out monthly more slates, of all descriptions, than is annually imported to Ireland?—consequently, to reap any benefit from his scheme, the speculation must be upon rather a small scale, for the expense of sending slates either abroad, or coastwise, would not in the least be diminished, and the breakage, of course, would be equally extravagant.

With regard to writing slates being manufactured from roofing slates, Mr. Ashdon and friends are labouring under the most gross misapprehension; so far is that fact from being "profoundly true," that blocks of colossal size are sent from Wales to London, and other places, and, by skillful division, are absolutely converted into almost every imaginable domestic service—from the billiard table down to the writing slate, &c.; and although kept in blocks on the wharf, often for years, the Bangor slates might even then be worked to roofing slates with equal economy to their first appearance at the quarry; for the atmosphere only affects the outward edge, and, by means of the sand-saw, all the difficulty is overcome; and strange as the fact might appear, all slate service (roofing and range material excepted) can be purchased, wholesale or retail, cheaper of the London manufacturer than at the Welsh quarries; and I am entertaining strong doubts (assisted as they are with the most ingenious machines of their own invention and patent right) whether they would not serve the Wicklow manufacturer the same fate.

The Irish Channel, in my view, being rather a wide space, and otherwise disadvantageous for tracing the strata, I can but badly digest the theory; and if it is not asking too great a favour, perhaps Mr. Ashdon will inform me, through the medium of the *Mining Journal*, upon what ground, or facts, does he base his expressed opinion, that the slate strata of both islands are the same. By so doing, he will confer no little favour upon me, as well as throwing a door ajar, which might prove of considerable public interest; for if the celebrated Bangor slate vein is actually found in all directions, as represented, who can doubt for a moment but what the same can be traced to the vicinity of Greenwich and Blackheath. But, perhaps, Mr. Ashdon (like many before him) has only thought that the "green tale" (rail) was a good "fly" to angle for the "gold fish."

Swan-street, Bermondsey, Nov. 26.

D. W. DAVIES.

WEST CORNWALL RAILWAY.

SIR,—It affords me, and thousands besides in this county, very great pleasure to find that this line of railway is to be extended to Penzance and Truro without further delay. Nothing, I think, but an unprecedented and unnatural depression of the railway interest could have deferred so long the completion of a line which, without the slightest doubt on my mind, will be a good dividend-paying line. Such, however, was the prostration of railway property and speculation consequent on the mania of 1845, that I believe even now, but for the efforts made by the company's solicitors at Penzance, the works would not be so soon proceeded with. It was they who enlisted the co-operation of capitalists in that locality, and for which they deserve the thanks of the proprietary.

The works between Hayle and Penzance are taken at a much lower price than I contemplated they could be done at; but I would urge upon the directors the great duty, not always performed, of strict economy in all items of expenditure. There is one item to which I would particularly call their attention—the engineering charges. The engineer is unquestionably a very expert gentleman in his profession, and should, therefore, be handsomely remunerated for his scientific ability; but you must not, as Dr. Franklin used to say, "pay too dear for your whistle." It should be remembered, too, that Mr. Brunel does nearly everything by proxy, so that the skill, whatever it may be, manifested in the railway works with which he is connected, is to be attributed more to his assistants than to himself. I am not one who would for a moment advocate any change in this department, except that of *extensive retrenchment*. In looking over, some time ago, the report of a half-yearly meeting of the company, I saw a charge in the account of a sum bordering on 11,000*l*. for engineering! I was much surprised at the sight, and had the curiosity to ascertain, approximately, the average expense per mile for his services, in merely drawing plans and sections of a railway and branches of only 32 miles in length, which I found to be 343*l*. I make up the distance in the following way:—Redruth to Hayle, 9½ miles; Hayle to Penzance, 8½ miles; Redruth to Truro, 9 miles (nearly); and the branch from Redruth, to join the proposed Cornwall Railway near Penryn, 6 miles; in all about 32 miles. How the directors could have passed such an account is with me a subject of still greater astonishment than the charge itself. Whether they were asleep, or overlooked it, I cannot say; but I will defy any man in the world, on fair grounds, to defend such a charge. If the directors have finally allowed that account, it is to be hoped that they will have the interest of the company more at heart in future than to pass another account so nearly allied to a fraudulent imposition. There must, I think, be an overcharge in that account of about 8000*l*. for please bear in mind that the charge of 11,000*l*. was made before any works were commenced, or contracted for.—A READER: Penzance, Nov. 26.

ALLMAN'S VOLTAIC LIGHT.

SIR,—I have noticed the communication of "Beta," in last week's Journal, reflecting on the bona fides of the report furnished by me. I need not assure you that I am quite free from bias in this question. The information I furnished I advisedly stated to be based on the allegations of the inventor, except in matters respecting which every one present will justify my assertions. I shall not imitate the temper of "Beta's" communication; but as this is a topic which interests the scientific world, I have forwarded "Beta's" communication to four different parties—at Paris, Frankfurt, Birmingham, and Manchester—who may, without collusion with Mr. Allman, be disposed to discuss the question of originality. In the mean time it may be sufficient to say that it does not appear, from the proceedings of Messrs. Staite and Petrie, that they concur with their indiscreet advocates in advancing pretensions to their being the real "Simon Pure"; for we have heard of no injunction, no action at law, no *scire facias*. Possibly they may consider that the legal document, so dogmatically advanced by "Beta," may admit of some qualification, or even that it may be now-a-days altogether a moot question.

London, Nov. 26.

YOUR CORRESPONDENT.

THE ELECTRIC LIGHT—INFRINGEMENT OF PATENT.

SIR,—The rumoured invention of Mr. Allman in electric illumination appears to have lost so much ground in public estimation since the appearance of my last letter upon the subject, that it is scarcely necessary for me (especially in the absence of a single contradictory affirmation) to trouble you with any further particulars. I stated, however, that I would adduce some facts in further justification of the remarks which I then made, and I will now endeavour to fulfil my promise as briefly as possible. On the occasion of the first public exhibition of "Mr. Allman's light" at the Polytechnic Institution, a statement was handed round, wherein it was set forth that "independent mechanism has been in this country always the agent for regulating the electrodes in the several plants for obtaining constant light from electricity;" and that "the only case in which they (the proprietors) had heard of the application of the current in the direct regulation of the electrodes, was by a plan of M. Archereau, of Paris, which they believed he had abandoned." Had the proprietors of this new light never read the specification of the patent granted to Mr. W. E. Staite? If they have done so, and if they declare that this specification does not embody the great principle of regulating the distance of the electrodes, not by "independent mechanism," but by the dynamic power of the electric current itself; then I unhesitatingly declare that all argument upon the subject is hopeless. I feel at once that I am in a mist—I neither understand the light, the specification, nor the commonest sentence in the

English language. Perhaps some of your readers will just refer to the specification, and explain away this present mystery. The truth is, Mr. Editor, that the proprietors of this "new light" are not so ill-informed upon these subjects as they would have people imagine. When Mr. Allman first applied for his patent, he was vigorously opposed by Messrs. Stait and Petrie; and on the occasion of that opposition both the applicant and his opponents were called three several times before the then Solicitor-General, Sir John Romilly. Messrs. Stait and Petrie not only entered into a full and complete explanation of their claims, but exhibited various plans and diagrams, wherein both permanent magnets and induced magnets were shown, separately and in combination; they stating, however, that they preferred the electro-magnet as being the most simple and certain in practice. At the conclusion of the investigation, Sir John Romilly assured the opposing parties that he had "struck out all Mr. Allman's claims to the self-regulating system on which they had clashed," and so the opposition terminated, and the patent was allowed to proceed. Will any one disprove this plain statement of facts?—BETA: Nov. 28.

TERRESTRIAL MAGNETISM.

Sir,—If Mr. Lake refers to Mr. Hopkins's volume, he will find the data by which he establishes the northern movement of the great continents are far more precise than the mere alleged change of their temperature, though this also is advanced as confirmatory evidence; and that the proofs of the present direction of the magnetic current are equally strong with the testimony derived from the marks of the fact. It was far from my intention to enter the lists in favour of any individual claim to priority of suggestion. The palm is finally awarded, and with justice, not to the originator of this or that idea, but to him who laboriously accumulates such a mass of physical facts as proves which notion is correct, combining or rejecting them in a system by evidence which commands assent.

The facts respecting the diurnal variations of the needle, to which Mr. Lake thinks the facts of geology cannot be put in opposition, appear to me to be quite in accordance with them, and a convincing proof, not of the existence of two equatorial currents, but of one uniform current, from pole to pole. If it is admitted that the variation is caused by the influence of the sun's rays, it must follow the effect will be most powerful where those rays are most direct—that is, at the solar equator. If, then, the magnetic current be represented by a cord, drawn from pole to pole, and the disturbance be, as it appears, a deflection towards the sun, that deflection will be at its maximum at or near the equator; and the centre of the cord being there drawn to the eastward, the south pole of the needle must in the northern latitudes be conformably drawn to the eastward in the direction of the current, causing the north pole to travel westward; but when the angle of deflection is passed, it is then the north pole of the needle which is drawn eastward, and the south travels westward. The supposed curve of no variation would thus continually migrate, as Mr. Lake advances the observations of Capt. Sabine and M. D'Abadie to prove, following the vertical course of the sun in the equator. The curve of no variation, or more correctly of altered variation, would, during the northern latitude summer, travel northward, till it reached its highest limit at the solstice, and thence travel to its lowest southern latitude at the solstice of the southern latitude summer; and this, the quoted observations at St. Helena and on the Red Sea, appear to establish as actually the fact. In considering the existence of a double current from the equator, dividing off in each direction, an insuperable difficulty has always presented itself. If there be two positive currents issuing from the equator towards the poles, it must follow that each pole is negative; and, as a consequence on passing the magnetic equator, the poles of the needle must be reversed—the north pole pointing to the south, and the south pole to the north. The only other alternative is still more irreconcilable with known laws—viz., that the currents commence collaterally at the equator in opposite conditions, issuing positive and negative side by side. This hard hypothesis would insure the general uniform direction of the needle, but involve the necessity of another imaginary curve at the juxta-position of the currents, over which, in transit, the obedient needle must reverse itself to prove the theory.

I am surprised that Mr. Lake should commit himself as "a natural conclusion" to the very vague analogy, "that the earth stands in the same relation to the sun as the ball does to the earth, each revolving in the presence of an electro-magnet." To say nothing of the influence of the sun's rays, and other known or unknown effects, which totally overthrow any analogy between a globe of metal twirled round by artificial means, either in a chamber or out of doors (where, if the sun and moon are of any account, it would be "in the presence" not of one, but three electro-magnets), and the relation of a planetary body to the sun, what is to be attributed to a ball revolving in the atmosphere, and not with it? On every point of the ball so revolving the air is pressing with a weight of 14 lbs. per inch, establishing no trifling friction, proportioned to the velocity of revolution. What is more probable than that the currents which were observed were the result of electricity excited by the friction of the air; and as that friction is greatest at the circumference of greatest revolution, is it a forced conclusion to expect that the currents should pass off towards the axes, which are comparatively negative and at rest? The earth does not move in its atmosphere, but with it. If it held the same relation as the artificial globe to the circumambient air, a tremendous hurricane would constantly be passing over the earth's surface from east to west, amounting at the equator to 1000 miles per hour. The sweet south would never have breathed upon a bank of violets; and the zephyrs of the poets must have been unknown.

If the arrangement of the masses of the earth is admitted to be evidence that at one time there was a northerly direction of current, those who assert the cessation of that direction should bring something in support of so extraordinary a change. The great fact that our coasts are constituted by the vegetation of the south, and that our limestones exhibit the organic products of that hemisphere and of the tropics, whilst in the south there is a total absence of any relics of the north, cannot be dismissed as the mere fruit of an accidental jumble of convulsions. Such broad, unalterable records outweigh a universe of theories and suggestions. The understanding is filled, and the attention arrested, by what is real, palpable, enduring. It is upon the wide basis of such facts that we can alone hope to found any attainment deserving the name of physical science.—DAVID MURPHY: November 24.

TERRESTRIAL MAGNETISM.

Sir,—The present discussion affords one, amongst many, of the singular instances of the affection of the human mind for error, and the usual turn of the argument into personalities and contempt of the experiments and observations of others, when a man is "convinced against his will," and determined to be "of the same opinion still." This result is particularly marked in Mr. Dumaresq's letter, who, finding the experiments and observations I had adduced from Kraft, Biot, Barlow, Faraday, Humboldt, Sabine, and D'Abadie, were conclusive in favour of the terrestrial electric currents flowing from the equator towards the poles, throws the whole evidence overboard, and leaves no testimony in the matter except his own and Mr. Hopkins' experiments in the Brazil and Mexico to the north of the magnetic equator. This course may satisfy himself, but it will not those who are seeking for the truth, who will take every observation and experiment into consideration in making their conclusions.

The theory of electric currents proceeding from pole to pole is as old as Halley. It was supported by Beccaria, and generally accepted, until the experiments of Kraft, Biot, and Barlow exposed its fallacy; yet, notwithstanding the experiments of the latter have been further opened and confirmed by Prof. Faraday, the old theory is again revived by Mr. Hopkins, who rejects these experiments, and yet admits some made with bar magnets, which have been shown by Kraft and others to be utterly inadequate to represent the electro-magnetic state of the earth. I can only repeat that, if the electro-magnetic state of the earth and heavenly bodies were produced by currents flowing in the manner represented by Mr. Hopkins, the whole universe would collapse into one mass, like any other set of electro-magnets in similar circumstances; for it is an electro-magnetic law, that when the electric currents flow in different bodies in the same direction, they attract each other, and when these currents do not flow in the same direction, and the bodies are not fixed, that these turn until the currents coincide, and the bodies attract each other. An illustration of this law will be found in the *Mining Journal* of 5th May, 1849, page 211. Even upon my theory, the planets in the solar system would come together, their electric currents being in the same direction, but for the action of the sun, in which the electric currents are in the opposite direction to those in the planets. Their different sizes, rates of axial motion, and other circumstances peculiar to each, however, rendering the electro-magnetic intensity of each different, and their distances from the sun being regulated mat-

terially by this intensity, each keeps its own orbit, according to the law developed in the experiment published in No. 1 of the papers "On some of the Uses of Pyrogen."

The experiment given by Mr. Hopkins of the effect of a horse-shoe magnet on a crystalline film floating on a saline solution, affords no proof that the surface of the earth is moving to the north, although it represents operations going on in Nature; neither can geological proofs be received as to the direction of existing electric currents, for we cannot tell when the strata acquired their present positions, whether gradually, or at the creation, or at the flood, or during any other great convulsion of Nature.

The success of Mr. Hopkins' work on *Terrestrial Magnetism*, as a guide in mining enterprises affords *prima facie* evidence of the correctness of the whole of the principles illustrated in it. The present question is, however, quite independent of this, for the electro-chemical effects of the electric currents in forming mineral deposits are the same, without reference to the direction in which those currents move, whether from pole to pole, or from the equator towards the poles. Hence the good results from following Mr. Hopkins' views when applied to mining operations, the principle being correct that the electric currents produce those deposits; his error is as to the direction of the currents, which does not vitiate the practical result.

The experiments of Barlow, to which I have referred, and thus brought upon myself the ire of your correspondents, are safe from attacks like those of Mr. Dumaresq. Experiments and investigations that could lead to results like the following:—1. That the laws of terrestrial magnetism are inconsistent with those which belong to a permanent magnetic body. —2. That they are perfectly coincident with those which appertain to a body in a transient state of magnetic induction, "before electro-magnetism was discovered by Oersted, are very far above contempt, and the possibility of being exploded.

I will not occupy your valuable space in exposing the inconsistencies of Mr. Dumaresq's letters. The personal nature of his remarks and their general spirit place them among the Gothicisms of past ages, and show that he has yet to learn some of the first principles of philosophical research.—J. J. LAKE: Ordnance-office, Portsmouth, Nov. 19.

P.S.—If Mr. Hopkins' magnetic observations show anything calculated to overthrow the inferences to be drawn from those of Humboldt and others, the best way would be for him to publish tables of them, that others may see the grounds upon which he forms his conclusions. By doing so he will confer a benefit on science, and until he does, he must not be surprised that his inferences are rejected.

PYROGEN NOT A MISNOMER FOR ELECTRICITY.

Sir,—My former reply to Mr. Coxworthy was not dictated with any intention of evading his proposition, that "fire destroys the bond of matter." The fire, or agent that causes the burning of coal, destroys the bond of the matter as far as the coal is concerned; but to stop here is taking only a one-sided view of the matter, for the same agent that destroys the bond of matter in the coal, gives rise to the bond of matter in the new substances, carbonic acid, vapour, &c., that are generated by the combustion. The same agent also gives rise to the bond of matter when oxygen and hydrogen are inflamed together, and form water, and in Prof. Davy's new method of making sulphuric acid. It destroys the bond of matter in the fire-damp of the miner, and originates, or is the bond of matter in the fatal choke-damp, and the same in all similar cases of chemical change.

But to the chief point, that pyrogen (compounded from two Greek words, signifying fire and I give rise to) is a misnomer for electricity. It frequently sets fire to buildings and ships, it will ignite gunpowder, the snuff of a candle recently extinguished, a mixture of oxygen and hydrogen, and metals in acid solutions. In all these cases the electric fluid is a begetter of fire. If Mr. Coxworthy has still any doubt upon the point, let him put charcoal electrodes at the poles of a powerful galvanic battery, and place his finger in the flame passing between them. Should this experiment not convince him that the electric fluid is a begetter of fire, it is to be feared that nothing will.—J. J. LAKE: Portsmouth, Nov. 19.

ATMOSPHERIC INFLUENCES.

Sir,—In my letter which appeared in the *Journal* of the 24th Aug. last, I endeavoured to show, on reference to carefully-recorded facts, that "heat" is not the cause of evaporation, and that the hygrometer is an imperfect instrument; and as that communication was addressed more especially to the authorities at the Royal Observatory, to whom I sent a copy, I have patiently waited till now for a reply, either in confirmation or refutation of what I advanced. But the Astronomer Royal having thought fit to observe the same culpable silence that has characterised the conduct of the other leading members of the scientific world, in reference to my efforts on behalf of truth, it is, perhaps, due to you, as well as to myself, that I should give an outline of the results afforded at a subsequent period of the year, and with another hygrometer, as confirmatory of my former statements; but as it would be a waste of the space in your *Journal* again to tabulate, in order to show how the "means" are made up, I shall confine my remarks to the evaporation from 5 to 10 o'clock p.m., and in the four following columns of figures, the first will give the dates of October, the second the mean of the hygrometer, the third the actual evaporation, and the fourth the mean temperature, deduced as in the former statement. I was absent from town the first six days, which will account for beginning on the seventh.

It will be seen, then, on reference to the 12th, 13th, and 21st, that with a difference of 2-5 in the hygrometer, we have evaporations of 60, 30, and 30 grains, and that the greatest amount of evaporation is with the lowest temperature—a discrepancy that may be said to prevail, as a general rule, throughout the whole of the month, as well as in this month, when a difference of 2 only in the hygrometer has resulted from evaporations of 90 and 50 grains, the respective temperatures being 48° and 51°.

There are, however, conditions under which we have deposition instead of evaporation; and as notions as far from the truth appear to influence the scientific mind as much in this respect as it is led astray by the hygrometer, the facts of the case may be acceptable to your unprejudiced readers, although to the jumpers at conclusions and dispensers of dogmas they must prove anything but agreeable; and what renders the pertinacity with which our contributors to the scientific world adhere to the old doctrines the more to be deprecated is, that laws are laid down for the information of the general reader as dogmatically as if they were the result of actual experiment.

In an article just issued from the press of Mr. Knight, of Fleet-street, we find the following wise conclusions; and Mr. Knight, it is well known, employs the most scientific men of the age:—"Thaw is the reduction of ice, or snow, to a liquid state, in consequence of an increase of temperature. The dissolution of the particles of ice in the atmosphere is the cause of the humidity which accompanies a thaw. * * * A severe and long-continued frost abstracts so much caloric from terrestrial bodies, as the walls of buildings, which are not exposed to the sun, that these are often cooled below the temperature of freezing water; and while in this state, if a current of warm air passes over their surfaces, the water which the air holds in solution deposits itself on the walls, where it is converted into ice, or snow. It remains thus frozen for a time after a thaw has commenced, but at length the temperature increasing, the ice is melted, and the walls are then covered with moisture. * * * It is often remarked that, at the time of a thaw taking place, there is felt a degree of coldness greater than that which is experienced during the continuance of the frost. This is apparently caused merely by the evaporation of the moisture which is then on the skin, for the thermometer, at the same time, indicates an elevation of temperature in the atmosphere."

Now, on the 30th October, the thermometer, at 9 a.m., stood at 38°, and the evaporation of the night was 30 grains; but during the day a change took place, and the thermometer rose to 48°, accompanied by a fall of misty rain, and at 5 o'clock there was an increase of weight in and on the scales of 30 grains. The temperature of the 31st, at 10 p.m., was 48°, and the evaporation moderate. The next morning, at 9 a.m., the temperature had risen to 53° only, and yet there was an increase of weight, or of condensation, of 50 grains. This condensation, then, could not be referable to particles of ice and snow in the atmosphere, but clearly to some other cause, unquestionably that which induces similar consequences before heavy falls of rain and thunderstorms in July and August; and the degree of coldness often remarked at a time of thaw, which, we are informed, is

referable to the evaporation of moisture on the skin, is clearly to be traced to the same cause that produces such an intense cold in freezing mixtures—viz.: the evolution of free electricity during the decrystallisation of the ice or snow, which our learned instructor still classifies as one and the same thing, although the characters of the two are, and have been shown to be, as different as those of distinct salts.

The period, however, is not far distant when an end will be put to this scientific twaddle, it being scarcely possible that the system of evasion, which has been so long maintained by the scientific world, can much longer resist the influence of truth in your widely-circulated columns. When I have appealed to the Government for inquiry, I have been told that I must establish a character among scientific men for my principles; and on my inviting discussion in this quarter, I am advised to publish my ideas, and leave the world to deal with them as they please, but that I am not justified in forcing them on the consideration of others; yet the self-same individual, who can thus tamper with philosophy, holds up to public view his brilliant discovery that oxygen is magnetic, and in dealing as he pleases with the discoveries of others, does not fail in forgetting to mention that the discovery had already been made, and was fully detailed in the *Chemist* of August, 1847, in a paper "On the Constitution of the Atmosphere—Electrical Condition of the Elementary Bodies," of which I sent to him a reprint.

All vices carry with them the seeds of their own destruction; and as steam increases in strength in proportion to the resistance offered to its escape, so do the energies of the advocates of truth redouble with unfair or unjustifiable opposition; and attempts to dam back that splendid stream which the Commissioners of Sewers persist in unnecessarily polluting, or to arrest chemical action in the sewers, and constant evolution of fœtid gases, which the Registrar-General asserts the Commissioners apply to the wholesale destruction of her Majesty's liege subjects, would not be more visionary than the hope to ward off, by paltry subterfuges, the triumph of philosophy over those errors in science which have entailed such incalculable misery on mankind.

FRANKLIN COXWORTHY,
Author of *Electrical Condition*.

Canterbury-place, Lambeth-road, Nov. 25.

COMPANIES PROCEEDING UNDER THE WINDING-UP ACT.

ASTURIAN MINING COMPANY.—The first petition day after Term is fixed for the 10th Dec.; but as claims and unopposed petitions will be taken first, it is not probable that this case will be taken before the second petition day, which will be the 20th Dec. We have heard from a correspondent, at Oviedo, that the decision of the *Audiencia*, or First Court of Appeal, has been to the effect of legalising the *entrega*, or delivery of possession, without expressing any opinion as to the legality of the contract. This is so far unfavourable to the opposition, as our correspondent states that it was confidently expected the sentence would be quite different. However, we believe, the appeal will be carried to the higher Courts, where it is thought certain influences will not prevail. It is evident that a profitable campaign will be made by the lawyers in Spain, as there is talk of several new suits. The Spanish shareholders have appealed against the decree of the Juez de Pola de Lena. There are to be two original proceedings on the part of two classes of the opposing shareholders. Who is to pay the piper for all this?

NORTHERN COAL MINING COMPANY.—We stated last week that the Master had struck out the names of the executors of Mr. J. B. Nettleship from the list of contributories, on account of his shares having been forfeited by the directors, in consequence of non-payment of calls. Mr. Bagge's case was further heard on Thursday, and concluded yesterday, when the Master, in giving judgment, said this was a case which was beset with difficulties; but he would ask, suppose this case had been tried in one of the equity courts, what would be the decision of a jury in such a case? In the first place, there was a provision in the deed of this company which enabled the shareholders to get rid of their shares under certain circumstances; and then there was an express provision, enabling the directors to purchase shares on, what might be termed, the provisions of the deed, at the market price, and if not at the market price, at a fair price. The whole question, therefore, was, is this a fair or a fraudulent transaction? Suppose the owner of the shares was unable to get 5s., or 6s., or 17 per share, was he not to offer them for the best price he could get? No doubt he could so, and he had done so; and the clause of the deed, enabling the directors to purchase shares from shareholders, provided they had gone through certain forms, was relied upon by them; those forms had been gone through, and the shares were sold. The form required was such that Mr. Bagge might have got over it, if he intended a fraud; but in this case, no such allegation had been made, and Mr. Bagge had not put the shares in the market with a view to do anything which would have "blown" upon the company, as it was called. It appeared, therefore, that those shares had been parted with at a reasonable price. Here the learned Master recapitulated the various cases that had been recited by the learned counsel, on behalf of Mr. Bagge; and concluded by saying he regarded the clause in the deed relied on by Mr. Bagge's counsel, as containing a general power to sell, and that, therefore, Mr. Bagge should be struck off the list. A question was raised about the costs, but it was not decided.

MERIONETHSHIRE SLATE COMPANY.—On Monday the proceedings for the settlement of the affairs of this company, which was established in 1846, for obtaining stone and slate from quarries in Merionethshire, were opened before Master Sir W. Home. The list of contributories was brought in by Mr. Ernest, official manager, and Messrs. Goodwin and Partridge, solicitors, but his honour declined going into the question of the liability of those on the list until Mr. Condell, solicitor to the company, and who is understood to have the books and papers, is examined. A summons was issued for Mr. Condell's attendance at the next meeting.

BOSTON, NEWARK, AND SHEFFIELD RAILWAY.—Master Richards has commenced a preliminary inquiry into the affairs of this company to ascertain what there is to wind up.

DIRECT EAST AND WEST JUNCTION RAILWAY.—On Saturday a meeting was held before Master Farrer, respecting the claim of Sir John Rennie against this company for engineering, amounting to 2600*l*. Messrs. Freshfield appeared in support of the claim, and Messrs. Galsworthy for Mr. Jay, the official manager. The surveys were from Kidderminster to Hereford. His Honour deferred going into consideration of the claim until the books and papers were in the possession of the official manager, and until the list of contributories was settled. It was stated that there is a sum of 10,000*l*. out of the 19,000*l*. received as deposits, for which the directors will be called on to account.

DIRECT EXETER, PLYMOUTH, AND DEVONPORT RAILWAY.—The recent decision of the Court of Chancery in the case of Matthews, an allottee, will have the effect of striking off the list of contributories in this company 750 persons.

DIRECT LONDON AND MANCHESTER RAILWAY.—The winding-up settlement of the affairs of this company has been transferred from Master Senior, who is absent on the continent, to Master Brougham. No answer has yet been put in to the bill filed against the directors at the instance of the Master, calling on the directors to account for the transfer of 40,000*l*. of the deposits paid over by the directors, without the authority of the shareholders, to Rastrick's Direct London and Manchester Railway.

GRAND TRUNK AND STAFFORD AND PETERBOROUGH RAILWAY.—On Tuesday, there was a meeting before Master Brougham, to consider the claims of creditors. The call of 5s. per share, to liquidate liabilities, is reported by Mr. Turquand, the official manager, to have been paid to the extent of two-thirds, and a bill in equity has been filed against the directors to recover from them a sum of between 2000*l*. and 3000*l*. in respect of the issue of spurious scrip. The claim of Mr. Bennett, solicitor, for 250*l*., for an action alleged to have been brought by authority of three of the directors against the secretary of the company, who absconded, was taken. Mr. J. Thompson, one of the directors, was examined as to the transaction, and deposed that neither he nor the other directors ever gave authority for the bringing of the action, which is disputed on the affidavit of one of the solicitors to the company.

LONDON AND SOUTHERN RAILWAY.—On Thursday the list of contributories was brought in by Mr. Hutton, the official manager, and Mr. Turner, solicitor to the estate, before Master Sir G. Rose, for settlement; when it was decided that all those persons in the position of class 3 of allottees, who had had shares distributed to them but had paid nothing, should be struck off the list as liable, on the ground that there was a specific condition in the letter of allotment, that unless the deposit was paid by a given day the shares would be re-allotted.

MADRID AND VALENCIA RAILWAY.—On Saturday the proceedings on the charge of the official manager against the directors were resumed before Master Blunt, and at the close of the day were adjourned to the 20th December, to prepare evidence of the receipt of the rest of the deposits at the other bankers, and its transfer to Messrs. Mastermans, and to show that each of the directors paid on their letters of allotment. It was stated by a contributor that Mr. Chadwick was met with in Brussels in September last. The amount of the caution money to be remitted by the Spanish Government, and which will be divided among the shareholders, is 20,000*l*.

BRITISH AND AMERICAN STEAM NAVIGATION COMPANY.—On Monday, before Sir G. Rose, three gentlemen were proposed to act as official managers to this undertaking: Messrs. Hutton, Sandeman, and Coleman. His honour appointed Mr. Hutton, of Moorgate-street, official assignee.

SOUTHAMPTON EMIGRATION AND SHIPPING COMPANY.—Master Richards has proceeded with the settlement of this company's affairs.

THE OUNDLE BREWING COMPANY.—The affairs of this company, established at Oundle, in Northamptonshire in 1836, with a paid up capital of 16,170*l*., distributed among 57 proprietors, came before Master Richards on Tuesday. The report of Mr. J. Hutton, the official manager, represented, from his examination of the books, that the liabilities of the company appear to amount to 18,000*l*., exclusive of the share capital. The assets consist of this brewing premises, plant, &c., the value of which is variously estimated. At a meeting of the shareholders, held at Oundle on the 21st inst., it was resolved, that in order to realise assets as early as possible, a sale should be effected by the official manager of

the brewing premises, plant, stock, and licensed houses, in separate lots by auction, and a vote of thanks was given to Mr. Hutton for his conduct of the winding-up of the estate. On Monday his honour, amongst other claims, allowed a sum of 1250*l.* against the company, the amount of one of its bonds, observing that, although he was not in the habit of complimenting any one, he thought great credit was due to Mr. Hutton for the promptitude with which he had brought the affairs to their present point, under the operations of an Act in Chancery, whose progress was generally supposed to be anything but speedy.

NATIONAL DISINFECTING AND DRY MANURE COMPANY.—On Tuesday, Mr. Hardy, the official manager, brought in a claim before Master Farrer, against the estate of this company of 483*l.* by Mr. J. Harris, agricultural chemist, who deposes on affidavit that he was engaged as superintendent of the company's works at Stepney, at 200*l.* per annum, and in experimental manures for "turnip sowing." The call of 6*l.* per share on 11,950 shares is in course of payment.

BRITISH AND FOREIGN GAS LIGHT AND METER COMPANY.—On Monday the proposals for appointment of official manager to this company came in before Master Dowdeswell (who will continue to officiate until his successor is formally appointed). The company was established in 1846, in Gresham-street, for carrying out improvements in gas lighting and gas meters, and continued up to 1848; and in April last, at a meeting of the shareholders, it was resolved to bring it under the Winding-up Act. About 650 shares out of 1000 of 2*l.* each were taken, and a deposit of 1*l.* 5*s.* paid on them. The debts, which were compromised by payments on the part of the directors, amounted to 600*l.* Mr. Goodchap, has been appointed official manager, to wind up this company.

UNIVERSAL GAS LIGHT COMPANY.—Yesterday, Sir George Rose allowed the claim of the solicitors under this estate, amounting to 1000*l.*

IMPERIAL SALT AND ALKALI COMPANY.—Creditors are to come in and prove their debts.

HULL PUBLIC BATH COMPANY.—Sir W. Horne has appointed Mr. Goodchap official manager to wind up the affairs of this company, which was started for supplying baths and pump-rooms to the people of Hull. It realised considerable profits on the first year of its establishment, but declining in popularity, the losses nearly exhausted more than half of the subscribed capital.

CHELTENHAM HOTEL COMPANY.—A petition has been presented for winding-up the affairs of this company.

ROYAL BANK OF AUSTRALASIA.—A lengthy enquiry was entered into before Master Richards on Thursday, as to retaining the name of Mr. M. W. Boyd on the list; he swore that he never applied for shares; never paid any calls, or received dividends; and though he admitted having numerous mercantile transactions with his cousins, the Messrs. Boyd, he entirely repudiated all connexion with shares in this bank.

EASTERN COUNTIES JUNCTION AND SOUTHERN RAILWAY.—Yesterday Sir W. Horne proceeded with the list of contributors, and placed thereon as liable, with some exceptions, the names of 21 of the committee of management, on evidence being adduced of their having consented to act, and having attended meetings of the body.

LONDON AND BIRMINGHAM EXTENSION RAILWAY.—Yesterday before Master Biant, Mr. Croysdill brought in a class of cases, consisting of directors who had signed the parliamentary contract to enable the company to go to Parliament for 200 shares each. It was contended that as the parliamentary contract or Deed of Settlement was never properly subscribed, the parties who had been elected to take this number of shares ought not now to be held liable. His Honour decided that, whatever the circumstances were under which the deed was signed, the parties must be held liable to the extent of the subscription, and placed them on the list. The liabilities amount to 10,000*l.*

IRON, HARDWARE, AND METAL TRADES' PENSION SOCIETY.—ELECTION OF PENSIONERS.

A MEETING of the above Society, for the ELECTION of TWO MEN and ONE WOMAN, and for other business, was held yesterday at the London Tavern, Bishopsgate-street.

T. B. SIMPSON, Esq. (Treasurer), in the chair.

Resolved unanimously.—That G. B. Thorneycroft, Esq., of Wolverhampton, be elected a Vice-President of the Society.

Resolved, on the motion of C. W. Woolton, Esq., seconded by Geo. Scamell, Esq.,—That the report of the committee on the case of Wm. Dods be fully confirmed.

At One o'clock the chairman nominated Messrs. Constable, Hoole, and Moser, to be assisted by other gentlemen, to act as scrutineers. The meeting then proceeded to the election. At Four o'clock the poll closed, and during the absence of the scrutineers it was

Resolved, on the motion of H. L. Taylor, Esq., seconded by W. S. Burton, Esq.,—That the thanks of this meeting are due to Messrs. Barwell, Bligh, Bennett, Mappin, Martineau, Thomas Clutton Salt, and E. F. Stanger, of Birmingham, for the zealous co-operation afforded by them to the deputation of the Society in July last, whereby the subscriptions of the Society were considerably augmented; and through whose present exertions, united with those of Thomas Pemberton, Jun., Esq., new donors and subscribers are continually being added to the institution.

Resolved, on the motion of John Brown, Esq., seconded by B. Ridge, Esq.,—That this meeting, having heard with sincere regret of the continued illness of their late Honorary Secretary, desire to convey to him their sympathy in his affliction, united with their earnest wishes for his restoration to health and strength.

The scrutineers having returned, the final close of the poll was announced as follows:

James B. Bowley	100	Samuel Bruce	25
John Adney	124	J. W. Carter	8
Ralph Baker	164	Christopher Davis	6
Joseph Osborn	18	William Farnside	24
Thomas Shrigley	35	John Packwood	26
James Watt	35	James Walker	53
Parkin Warke	36	Sarah French	21
John Wigley	1431	Elizabeth Millward	22
Edward Elliott	1641	Mary Bale	6
John Gorbell	107	Mary Ann Swatton	351
John Lewis	112	Mary T. Shipton	47
Isaac Williams	243	Ann Woodward	69
John Bayly	6	Frances Bayly	164
John Bradney	2000		

Whereupon the Chairman declared that the election had fallen on Edward Elliott, John Bradney, and Mary Ann Swatton, to receive pensions of 20 guineas per annum each from the funds of the charity.

Resolved.—That the proceedings of this meeting be advertised, under the direction of the committee, with a notice of a tenth election of pensioners in May next.

Thanks were then given to the Scrutineers and to the Chairman, and the meeting separated.

The tenth election of pensioners will take place in May next. The candidates must be deserving and necessitous persons, occupying, or having occupied, the station of m^r, traveller, clerk, warehouseman, foreman, or apprentice, in any branch of the iron, hardware, and metal trades, in any part of Great Britain, or the widows of such persons. Printed forms of application may, on the recommendation of two subscribers, be had of the Secretary, to whom they are to be returned, filled up with the required particulars, on or before the 3d February next, after which day no application relating to this election can be received.—47, Upper Thames-street, City.

CORNISH STEAM-ENGINES.

[Abstract from Browne's Cornish Engine Reporter, from Oct. 22 to Nov. 20.]

PUMPING-ENGINES.		
Number reported		23
Average load per square inch on the piston, in lbs.		13.4
Average number of strokes per minute		4.7
Gallons of water drawn per minute		46.2
Average duty of 20 engines—being million lbs. lifted 1 foot high, by the consumption of 1 cwt. of coals		64.7
Actual horse-power employed per minute		99.6
Average consumption of coals per horse-power per hour, in lbs.		3.6
ROTARY-ENGINES—WHIMS.		
Number reported		20
Number of kibbles drawn		73,917
Average depth of drawing, in fathoms		13.6
Average number of horse-whim kibbles drawn the average depth, by consuming 1 cwt. of coals		49.5
Average duty of 14 engines, as above		15.1
STAMPS.		
Number reported		7
Average number of strokes per minute		10.4
Average duty of 5 engines, as above		47.0
Actual horse-power employed per minute		177.1
PUMPING-ENGINES DOING HIGHEST DUTY.		
Far Consols	80-inch single	Millions 99.2
Fowey Consols	80-inch single	58.9
Great Polgooth	80-inch single	85.1
Stray Park	80-inch single	82.7
West Fowey Consols	60-inch single	82.2
Par Consols	73 and 36-inch Sims's combined	81.8
North Pool	70-inch single	70.9
Callington	60-inch single	66.8
WHIM-ENGINES.		
Fowey Consols	22-inch double	Millions 28.5
Par Consols	24 and 13-inch Sims's combined	26.0
Fowey Consols	22-inch double	26.0
Great Polgooth	22-inch double	25.8
Par Consols	24-inch single	25.5
Devon Great Consols	30 and 16-inch Sims's combined	20.2
STAMPING-ENGINES.		
Great Polgooth	35-inch double	Millions 63.6
Tincroft	36-inch double	51.3
Tamar	30-inch single	46.5

A CURE BY HOLLOWAY'S OINTMENT AND PILLS OF A TUMOUR ON THE KNEE EIGHTEEN MONTHS AGO.—Mrs. Jones, of Portland-street, Lincoln's Inn-fields, caught a severe cold, which settled in her knee, and formed a tumour on the joint, in the course of time became so stiff that she could not bend it, and it continued so for 13 months. She tried remedies after remedy, but to no purpose, and she became fearfully alarmed. At last she rubbed Holloway's ointment into it unsparsingly every night and morning, and took the pills, which completely dispersed the tumour, and the joint has become again as pliant as ever, and free from pain.—Sold by all druggists and at Professor Holloway's establishment, 244, Strand, London.

NORFOLK RAILWAY.—At the Adjourned Half-yearly

General Meeting of the proprietors of this Company, held at their offices, Guildhall-buildings, London, on Tuesday, the 28th day of November, 1850.

Major TYSDALE in the chair;

The advertisement convening the meeting having been read—

It was moved by the Chairman:

That so much of the report of the Directors as was not adopted at the last meeting, together with the statement of receipts and expenditure on capital account for the past half-year, be now received and approved.

Upon which an amendment was proposed by M. H. Court, Esq.; seconded by Henry Harvey, Esq.:

That a committee be appointed, to be composed of such shareholders of the Company who hold an amount of stock to qualify a Director, for the purpose of investigating the several matters contained in the Report of the Directors of the Company, of grave consideration and importance, in objection to the proceedings and Reports of the Directors of this Company with respect to their administration of its concerns, and that such committee have full powers to require the production of all minutes of proceedings of the Directors, and of all papers and public documents of every description which at any time have had, or may have, reference to the receipts and expenditure of the capital stock or other moneys of the Company, as well as the revenue thereof, or to its management in any respect; and that such committee be requested, at their discretion, to make selection of such qualified shareholders who may be willing, or who may be inclined, to undertake the future responsibility of a Director of this Company; and that such committee do make report at the next half-yearly general meeting, or sooner if need be, of their proceedings.

And upon the amendment being put, there appeared 5 votes for it and 52 against it. And the Chairman declared that the amendment was negatived.

Whereupon the original motion was put and carried by a large majority.

CHARLES W. TYSDALE, Chairman.

The Chairman having quitted the chair—

It was moved by Henry Harvey, Esq.; seconded by J. B. Jackson, Esq.:

That the best thanks of this meeting are due to Major Tyndale for the very able manner in which he has conducted this meeting.

JAMES HUTT, Secretary.

Guildhall-buildings, London, Nov. 26, 1850.

STEAM TO INDIA AND CHINA, VIA EGYPT.—Regular

MONTHLY MAIL (steam conveyance) for PASSENGERS and LIGHT GOODS to CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG-KONG.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY

BOOK PASSENGERS and RECEIVE GOODS and PARCELS for the ABOVE PORTS by their steamers—starting from Southampton on the 20th of every month; and from Suez on or about the 10th of the month.

BOMBAY.—Passengers for Bombay can proceed by this company's steamers of the 29th of the month, to Malta, thence to Alexandria by her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.

MEDITERRANEAN.—Malta—On the 20th and 29th of every month. CONSTANTINOPLE—On the 29th of the month. ALEXANDRIA—On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th, 17th, and 27th of the month.

For plans of the vessels, rates of passage-money, and to secure passages and ship cargo apply at the company's offices, No. 132, Leadenhall-street, London; and Oriental-place, Southampton.

TO ENGINEERS, MACHINISTS, AND BRASSFOUNDERS, &c.

FENTON'S PATENT ANTI-FRICTION METAL.—

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